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H. Greene

1982-1984

Catalogue #1135-1483

Journal

1982 Costa Rica

Calif: Mendocino, Inyo, San Bernadino,
Riverside, Kern Cos.

1983 Costa Rica

Calif: Kern Co.

1984 Calif: Mendocino Co.

Costa Rica

Oklahoma: Cimarron Co.

New Mexico: San Miguel, Cibola Cos.

Calif: Orange, San Bernadino Cos.

[illegible]

Greene, H.

1982

- 23 April Near Pisgah Crater, 7.3 mi W. of RR Tracks on National Trail Hwy,
(continued) San Bernardino Co., California
1135 Phrynosoma platyrhinos DOR 1917 hr
- 24 April Pisgah Crater, San Bernardino Co., California
1136 Gambelia wislizeni 0904 hr "black"
1137 Gambelia wislizeni \approx 1100 hr
1138 Phrynosoma platyrhinos
1139 Crotalus mitchelli 0930 hr
1.0 mi S. Cal City Blvd on Rd to Hwy 58, Kern Co., California
1140 Crotalus scutulatus DOR 2010 hr, 11.5g
7.6 mi S. Cal City Blvd on Rd to Hwy 58, Kern Co., California
1141 Crotalus scutulatus DOR 2034 hr, 22g
7.8 mi S. Cal City Blvd on Rd to Hwy 58, Kern Co., California
1142 Crotalus scutulatus DOR \approx 2037 hr, 16.5g
- 25 April 5 mi N. California City, Kern Co., California
1143 Phrynosoma platyrhinos AOR \approx 0900 hr
- 7 May 8.6 mi E Hwy 395 on Hwy 190, Inyo Co., California
1144 Crotalus cerastes AOR 2057 hr 332 + 30 32g (kept by D. Gundell)
23.2 mi E Hwy 395 on Hwy 190, Inyo Co., California
1145 Crotalus cerastes AOR 2124 hr
- 8 May Trona Road, 1 mi N of Hwy 395, San Bernardino Co., California
1146 Crotalus mitchelli AOR 1551 hr
Near Pisgah Crater, 1.6 mi W. of RR tracks on National Trail Hwy, San Bernardino Co., California
1147 Crotalus cerastes AOR 2023 hr 251 + 15 mm 23g (incl. prey)

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- 8 May 10.1 mi E Newberry Springs (I40) on National Trails Hwy,
San Bernardino Co., California
- 1148 Coleonyx variegatus AOR 2126 hr
1.4 mi E Newberry Springs (I40) on National Trails Hwy,
San Bernardino Co., California
- 1149 Hypsiglena torquata DOR 2145 hr
on National Trails Highway
- 10 May 0.4 mi W. of RR tracks, near Pisgah Crater, San Bernardino Co., California
- 1150 Crotalus cerastes AOR 2015 hr Slg (incl. prey) 390+38 mm
on National Trails Hwy
Near Pisgah Crater, 2.7 mi E of RR tracks, San Bernardino Co., California
- 1151 Crotalus cerastes AOR 2027 hr
- 12 May 5 mi N California City, Kern Co., California
- 1152 Crotalus scutulatus active 1030 hr 842+61 mm 4/108
≈ 3 mi N California City, Kern Co., California
- 1153 Gambelia wislizeni ♀
- 1154 Lynx rufus scat
- 11 May Pisgah Crater, San Bernardino Co., California
- 1155-1158 Lynx rufus scats
- 12 May 37.2 mi W. Panamint Valley Rd on Hwy 190, Inyo Co., California
- 1159 Coleonyx variegatus AOR 2155 hr aberrant striped pattern
- 13 May 4.2 mi W. Darwin Rd on Hwy 190, Inyo Co., California
- 1160 Crotalus mitchelli AOR 0032 hr
6.2 mi NW Redrock - Randsburg Rd on Garlock Rd., Kern Co.
California
- 1161 Crotalus cerastes DOR 0955
5.6 mi S. ~~Redrock~~ Redrock - Randsburg Rd on Hwy 14, Kern Co., California
- 1162 Masticophis flagellum AOR 1021 hr

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15 May

4.9 mi E. Alameda Co. Line on Corral Hollow Rd., San
Joaquin Co., California

1163 Crotalus viridis AOR 2040 hr 30g (incl prey) 298 + 24 mm

4.4 mi E. Alameda Co. Line on Corral Hollow Rd., San Joaquin Co.,
California

1164 Crotalus viridis AOR 2049 hr (kept by David Cundall)

2.0 mi E. Alameda Co. Line on Corral Hollow Rd., San Joaquin Co., Cal.

1165 Arizona elegans AOR 2116 hr 8g 263 + 38 mm

3.0 mi E. Alameda Co. Line on Corral Hollow Rd., San Joaquin
Co., California

1166 Crotalus viridis AOR 2121 hr. 481 + 27 mm 75g (kept by D. Cundall)

1.2 mi E. Alameda Co. Line on Corral Hollow Rd., San Joaquin Co., Cal.

1167 Crotalus viridis AOR 2146 hr 36g 371 + 32 mm

2.2 mi E. Alameda Co. Line on Corral Hollow Rd., San Joaquin
Co., California

1168 Pituophis melanoleucus AOR 2159

2.5 mi E. Alameda Co. Line on Corral Hollow Rd., San
Joaquin Co., California

1169 Pituophis melanoleucus AOR 2213 415 + 60 mm 32g

28 May 5 mi N. California City, Kern Co., California

1170 Pituophis melanoleucus 370g 927 + 128

Pisgah Crater, San Bernardino Co., California

1171 Crotalus mitchelli active \approx 1740 hr

1172 Crotalus cerastes 120g 507 + 27 mm

1173 Crotalus cerastes 53g 405 + 38 mm

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11 April 7.3 mi. N. Novato (at Hwy 37) on Hwy 101,
Marin Co., California

1125 Lampropeltis getulus DOR at 1310 hr

17 April 6.1 mi E. Flynn Creek Rd. on Orr Springs Rd.,
Mendocino Co., California

1126 Charina bottae Coll. J.H. Carothers 7.7g, 226+26mm

1127 Charina bottae Coll. R.L. Seib 56.5g, 413+58+? mm

23 April ~28 mi W. Barstow on Hwy 58, San Bernardino Co., California

1128 Pituophis melanoleucus AOR/DOR 1613 hr, 17.5g

Near Pisgah Crater, 5.9 mi W. of RR tracks on National
Trails Hwy, San Bernardino Co., California

1129 Crotalus cerastes AOR 1919 hr, 84g

Near Pisgah Crater, 11.5 mi W of RR tracks on National Trails
Hwy, San Bernardino Co., California

1130 Crotalus cerastes AOR 1934 hr, 55g

Near Pisgah Crater, ~~3.8~~^{at} mi W. of RR tracks on National Trails
Hwy, San Bernardino Co., California

1131 Crotalus cerastes AOR 2025 hr, 40g

Near Pisgah Crater, ~~5.0~~^{1.2} mi. W. of RR tracks on National Trails
Hwy, San Bernardino Co., California

1132 Crotalus cerastes AOR 2032 hr, 69g

Near Pisgah Crater, 2.0 mi W. of RR tracks on National Trails
Hwy, San Bernardino Co., California

1133 Crotalus cerastes 2036 hr AOR, 75g

Near Pisgah Crater, 0.6 mi W. of RR tracks on National Trails
Hwy, San Bernardino Co., California

1134 Crotalus cerastes AOR 2057 hr, 44g

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28 May Near Pisgah ≈ 5 mi E of Newberry Springs on National Trails Hwy,

San Bernardino Co., California

1174 Crotalus cerastes AOR 38g 337+31mm

4.2 mi W. Anboy on National Trails Hwy, San Bernardino Co.,

California

1175 Crotalus cerastes AOR 7g 206+14mm

San Bernardino Co., California

1176 Crotalus cerastes AOR 100g 509+33mm

Near Pisgah Crater, 2.5 mi W. of I 40 overpass on National
Trails Hwy, San Bernardino Co., California

→ 1178 Chironactis occipitalis AOR (orange interspaces) 7g 233+52mm

1179 Chironactis occipitalis AOR 7g 230+49mm

2.8 mi W of I 40 overpass on Natl. Trails Hwy, near Pisgah Crater

1179 Arizona elegans AOR 9.5g 309+46mm 2 Uta regurg. & saved

29 May Pisgah Crater, San Bernardino Co., California

1180 Crotalus mitchelli 0910 hr

1181 Crotaphytus bicinctores 36g

Near Pisgah Crater, 0.2 mi W. of RR tracks on National Trails Hwy,
San Bernardino Co., California

1182 Crotalus cerastes AOR 2120 hr 67g 446+29 mm

0.9 mi W. Judlow (I 40) on National Trails Hwy, San Bernardino
Co., California

1183 Crotalus cerastes AOR 2147 hr 110g 523+57mm

6.6 mi W. Judlow (I 40) on Natl. Trails Hwy, San Bernardino Co.,
California

1184 Crotalus cerastes AOR 2205 hr 57g 396+26mm

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29 May 6.3 mi. W. Judlow (I40) on Natl. Trails Hwy, San Bernardino Co., California

1185 Crotalus cerastes AOR 2227 hr 115g 478+30 mm

13.6 mi W. Judlow (I40) on Natl. Trails Hwy, San Bernardino Co.,

1186 Arizona elegans AOR 115g 695+98 mm

10.8 mi W. Judlow (I40) on Natl. Trails Hwy San Bernardino Co., California

1187 Arizona elegans AOR 140g 720+79 mm

1188 Crotalus cerastes AOR 12g 240+15 mm

1189 Crotalus cerastes AOR 46g 482+24 mm

1190 Crotalus cerastes AOR 26g 306+29 mm

1191 Arizona elegans AOR 79g 612+98 mm

1192 Arizona elegans AOR 178g 775+117 mm

30 May 12 mi S. Jct. Panamint Valley Rd on Tioga - Wildflower Rd., Inyo Co., California

1193 Phrynosoma platyrhinos AOR/DOR 1300 hr, pres 800 hr 20g

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- 30 May Darwin Falls Canyon, x 2 mi S. Hwy 190 on Darwin Rd.,
Inyo Co., California
- 1194 Crotaphytus bicinctores x 1300 hr, pres. 1800 hr
9.5 mi E. Saline Valley Rd on Hwy 190, Inyo Co.,
California
- 1195 Chionactis occipitalis AOR 2147 hr 8.5g 252+55 mm
6.8 mi W. Darwin Rd. (E. Jct.) on Hwy 190, Inyo Co.,
California
- 1196 Chionactis occipitalis AOR 5.5g 218+47 mm
9.2 mi W. Darwin Rd (E. jct.) on Hwy 190, Inyo Co.,
California
- 1197 Chionactis occipitalis AOR 8g 240+24+?
0.2 mi. E. Darwin Rd. (E. Jct.) on Hwy 190, Inyo Co.,
California
- 1198 Crotalus cerastes AOR 6.5g 207+19 mm
2.6 mi. E. Saline Valley Rd. on Hwy 190,
Inyo Co., California
- 1199 Crotalus cerastes AOR 64g 380+38 mm
- 21 June 22 mi W. Hwy 6 on Hwy 120, Mono Co., California
- 1200 Uta stansburiana
1.3 mi W. Saline Valley Rd on Hwy 190, Inyo Co., California
- 1201 Rhinocheilus lecontei DOR 2201 hr 50g
0.8 mi E. Saline Valley Rd. on Hwy 190, Inyo Co., California
- 1202 Rhinocheilus lecontei AOR 2207 hr 78g 580+96 mm
0.5 mi W. Darwin Rd on Hwy 190, Inyo Co., California
- 1203 Crotalus cerastes AOR 2235 hr 55g 405+30 mm

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23 June 6.6 mi N. I40 on Kellaker Rd., San Bernardino Co., California

1204 Masticophis flagellum 1155 hr 138g 862 + 298 mm

6.0 mi ENE Randsburg - Mojave Rd on 20 Mule Team Parkway,
Kern Co., California

1205 Crotalus scutulatus AOR 2126 hr 140g 606 + 45 mm

16.4 mi ENE Randsburg - Mojave Rd on 20 Mule Team Parkway,
Kern Co., California

1206 Crotalus scutulatus AOR 2141 hr 70g 467 + 36 mm

7.4 mi ENE Randsburg - Mojave Rd on 20 Mule Team Parkway
Kern Co., California

1207 Crotalus scutulatus AOR 2153 hr 60g 2 rodents ht; 425 + 32 mm 1 $\frac{1}{2}$ / 10g

5.1 mi ENE Randsburg - Mojave Rd on 20 Mule Team Parkway,
Kern Co., California

1208 Crotalus cerastes DOR 2201 hr

3.1 mi ENE Randsburg - Mojave Rd on 20 Mule Team Parkway,
Kern Co., California

1209 Rhinocheilus lecontei 110g (+prey) 643 + 104 mm AOR 2209 hr 2 rodents ht; 1 $\frac{1}{2}$ / 15-20g

24 June 5 mi N. California City, Kern Co., California

1210 Crotalus scutulatus active 0915 hr 790g 925 + 75 mm

1211 Crotalus cerastes active 0920 hr 120g 450 + 30 mm

3.4 mi N. California City (Mojave - Randsburg Rd) on Neuralia Rd.
Kern Co., California

1212 Masticophis flagellum AOR/DOR 1127 hr 310g 1025 + 335 mm

21 June 7.2 mi NE Big Pine (Hwy 395) on Hwy 168, Inyo Co., California

1213 Crotalus mitchelli DOR

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12 January

Canigal, Provincia Alajuela, Costa Rica

1214 Centrolenella ~~illex~~ 1440m C. prosoblepon

1215 Centrolenella ~~illex~~ 1440m C. prosoblepon

~10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1216 Bufo haematiticus

1217 Eleutherodactylus fitzingeri

1218 Smilisca sordida

13 January ~10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1219 Bufo haematiticus

1220 Bufo coniferus

1221 ~~Eleutherodactylus~~ Leptodactylus melanonotus

1222 Eleutherodactylus fitzingeri 1020'

1223 Dendrobates pumilio

1224 Anolis ~~limifrons~~ ^{cernusimus} camp 1645

1225 Anolis ~~tropidolepis~~ ^{lionotus} 190m along creek coll. M. Grayum

1226 Rana warshawitschii 190m along creek coll. M. Grayum

1227 ~~Hyla~~ Smilisca sordida ~1945^m on leaf, 1m

14 January 1228 Stomach contents of Leucophaea ^{albicollis} (F.G. Stiles 1903, 822g), grasshopper

1229 Eleutherodactylus ^{warfordi} 1335hr, 1100', red on thighs

1230 Rana warshawitschii 1357hr, 1180'

1231 Dendrobates pumilio 1411hr, 1140'

1232 Rhadinaea decorata 1436hr, 1160'

1233 Tepidophyma flavimaculata 1500 hr, 1200'

1234 Tepidophlepharis ~~argus~~ ^{xanthostigma} ~1600hr

1235 Imantodes cinchona coll. C. Hony

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- 14 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1236 Rana warszewitschii coll. C. Gomez
- 1237 Eleutherodactylus ^{cerasimus} coll. C. Gomez red on thighs
- 1238 Eleutherodactylus ^{bransfordi} coll. C. Gomez
- 1239 Anolis humilis coll. C. Gomez
- 1240 Eleutherodactylus ^{biporcatus} coll. M. Grayson red on toes & fingers
- 1241 Eleutherodactylus 1945 in ~~Hypocentrus~~ fitzingeri
- 15 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1242 Leptodeira septentrionalis 11.5g
- 1243 Bufo holdridgii soccifer marinus
- 1244 ~~Eleutherodactylus~~ Leptodactylus melanonotus
- 1245 Rana warszewitschii
- 1246 Anolis biporcatus dorsal bluish white w/ black spots 10.7g
- 16 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1247 Dendrobates pumilio 1260', \approx 1200m
- 1248 Sphenomorphus cherriei \approx 1200', \approx 1215m 2.7g
- 1249 Eleutherodactylus minimus coll. C. Gomez black mask
- 17 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1250 Felis onca scat
- 1251 Dendrobates pumilio
- 1252 Eleutherodactylus ^{rugulosus} sp. small red spots on dorsum
- 1253 Eleutherodactylus ^{rugulosus} sp. small red spots on dorsum
- 1254 Eleutherodactylus
- 1255 Eleutherodactylus
- 1256 Eleutherodactylus
- 1257 Eleutherodactylus
- 1258 Eleutherodactylus
- } all bransfordi
red on thighs

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17 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1259 Eleutherodactylus biporcatus

1260 Eleutherodactylus red on thighs, rusty dorsal stripes transfordi

1261 Anolis

1262 Anolis humilis dewlap orange-red w/ white flecks & gold border

1263 Anolis stripe on dorsum, by Rio Guasimo

1264 Anolis lionotus dewlap orange-yellow

1265 Lepidoblepharis xanthostigma near Q. Cartavana, coll. C. Hinglo

1266 Anolis coll. A. Mena Rojas

1267 Anolis coll. A. Mena Rojas

1268 Eleutherodactylus fitzingeri ^{middorsal} light stripe coll. A. Mena Rojas

1269 Eleutherodactylus cerasinus ^{tan heels} red on thighs coll. A. Mena Rojas

1270 Eleutherodactylus cerasinus red on thighs coll. A. Mena Rojas

1271 Gybelis brevivestris 24.3g coll. A. Mena Rojas

1272 Dendrophidion vinitor 32.5g coll. M. Grayum

18 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1273 Micrurus nigrocinctus 85g 7557-380 coll. Jorge

1274 tadpoles (lot) (6) ~~in~~ flooded grassy area

1275 Eleutherodactylus leptodactylus melanorotus

1276 Eleutherodactylus leptodactylus melanorotus

1277 Bufo hoddidgeri coccifer marinus

1278 Bufo hoddidgeri coccifer

1279 Rhadinaea decorata 4g coll. M. Grayum

1280 Eleutherodactylus cerasinus coll. J. Hartshorn

1281 Eleutherodactylus cerasinus coll. J. Hartshorn

1282 Eleutherodactylus ^{orange on hind legs} ^{light dorsolateral} stripes coll. transfordi J. Hartshorn

1283 Eleutherodactylus mimus coll. J. Hartshorn

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- 18 January 10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1284 Anolis 36g ^{green, dewlap} ^{dark w/ white border} coll. A. Mena Rojas
- 1285 Bufo melanochloris coll. A. Mena Rojas
- 1286 Imantodes coll. A. Mena Rojas
- 1287 Atelopus varius Rio Peje drainage coll. A. Mena Rojas
- 1288 Bufo haematibicus
- 19 January 10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
- 1289 Eleutherodactylus fitzingeri coll. G. Hartshorn
- 1290 Dryobates melanotos 195g, ^{~1.5 km W. of R. Guasimo} ^{~450m} coll. A. Mena Rojas
- 1291 Eleutherodactylus biporcatus 45g removed from HWG 1290
- 1292 Leptophis depressirostris 65g ^{SC removed} ^{~325m} coll. G. Hartshorn
- 1293 Bothrops nasutus 24g ^{~375m} coll. G. Hartshorn
- 1294 Rhadinaea decorata 5.5g, ^{~350m} coll. A. Mena Rojas
- 1295 Rhadinaea decorata 4.8g ^{~310m tail tip lost} ^{in capture} coll. G. Hartshorn
- 1296 Eleutherodactylus sp. rugulosus coll. G. Hartshorn
- 1297 Eleutherodactylus biporcatus coll. G. Hartshorn
- 1298 Eleutherodactylus cerasinus ^{bright red prox.} ^{in groin} coll. G. Hartshorn
- 1299 Eleutherodactylus transfordi ^{red in groin} ^{misty dorsolateral strip} coll. G. Hartshorn
- 1300 Dendrobates pumilio 1280' 1030 hr
- 1301 Dendrophidion ninito ^{SC removed} ^{~50g} coll. G. Stiles
- 1302 Oxybelis brevirostris ^{~400 m, near R. Guasimo} 2.4g coll. C. Pingle
- 1303 Bufo melanochloris ^{~400 m near R. Guasimo} coll. C. Pingle
- 1304 Anolis lionatus 600-640m, Rio Guacimito, ^{dewlap yellow-orange w/ light flecks} coll. C. Pingle
- 1305 Anolis capito 500 m, ^{dewlap w/ white, brown, yellow flecks} ^{near Rio Peje}, coll. M. Grayson
- 1306 Anolis limifrons ^{dewlap white w/ yellow spot}
- 1307 Anolis sphenomorphus cherriei
- 1308 Atelopus varius 600-640m, R. Guasimito coll. I. Chacon & C. Pingle

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19 January 10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1309 Atelopus varius

1310 Atelopus varius

1311 Atelopus varius

1312 Atelopus varius

coll. I. Chacón

& C. Pringle, 600-

640m, Rio
Guacimito

20 January ~10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1313 Anolis limifrons 570m dewlap yellow & white w/ orange spot

1314 Eleutherodactylus cerasinus

1315 Atelopus varius

21 January ~10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1316 Atelopus coll. ♂ varius

1317 Atelopus varius

1318 Eleutherodactylus fitzingeri 710m on tree

1319 Anolis lionotus dewlap orange w/ white flecks 1725hr

1320 Gerrhonotus phaeota on leaf ~2000m

1321 Anolis limifrons ♀

1322 Anolis biporcatus dewlap white streaked w/ black or brown

22 January ~10 km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1323 Arremon festiva

Rio Peje

coll. C. Gomez

1324 Leptophis depressirostris

135g

SC removed

1077+631

Rio Peje

coll. C. Gomez

1325 Eleutherodactylus cerasinus

bright red
thighs

coll. C. Pringle

1326 Eleutherodactylus rugulosus 43.5g

1135hr, 1900' eyes & throat mostly
or copper belly white

1327 Eleutherodactylus biporcatus

1620' died in bag

1328 Bufo haematificus

1329 Atelopus varius

900m coll. G. Hartshorn

1330 Masticodytes melanobolus

270+93

5.0g

coll. A. Mena Rojas

1331 Xenodon rhabdocephalus

coll. A. Mena Rojas

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23 January ~10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1332 Bufo coriifrons coll. C. Pringle

1333 Anolis biporcatus develop bluish white w/ brown 18.3g mating
scales and darker splotches 95mm SV scar on left

24 January ~10 Km WSW Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1334 Leptoplis depressirostris 1245h, 73g, 685+381
SC removed

1335 Chironius grandisquamus 610g 1177+671mm 1334h

1336 Felis onca track cast in parafin

1337 Leptodactylus pentadactylus 165g

1338 Smilisca sordida

2 February Fincada Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1339 Felis onca scat 500m marker on Holdridge Trail

1340 Felis onca scat ~925m marker on Far Jump Trail

6 February Fincada Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

1341 carnivore scat (kera?)

1342 Felis onca (?) scat

1343 Felis onca (?) scat

1344 Felis onca (?) scat

1345 carnivore scat (procyonid?) (didelphid?)

8 February

1346 animal remains - carnivore kill?

9 February

1347 Norops capito, stomach contents only

10 February

1348 carnivore scat

11 February

1349 Felis onca scat (sloth)

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- 13 February Finca La Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
1350 Pray item of Norops humilis (see field notes)
- 15 February
1351 Felis onca scat CCL 902m
- 17 February
1352 Felis onca scat Holdridge Trail 325m
- 15 February Cerro de La Muerte, Prov. , Costa Rica
1353 Felis cf. concolor scat Coll. Chris Leahy
- 7 March Finca La Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
1354 Felis onca scat, new property Atajo
- ~~7 March~~
1353 Norops capito (stomach contents only)
1355 Coendou mexicanus (foot only - predator kill)
- 10 March
1356 Norops capito (stomach contents only)
- 17 March
1358 Pseustes poecilonotus (snake released, stomach contents saved - 4 rats)
- 4 May
1359 Pituophis melanoleucus
- 5 May
1360 Masticophis flagellum
- ~~7 May~~
1361 Crotalus cerastes
- 7 May
1362 Crotalus sentulatus

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- 7 May California, San Bernardino Co., Kelso Dunes
1363 Pituophis melanoleucus active 0945 hr 390g 940+142 mm
- California, Inyo Co., 4.6 mi W. Darwin Wash Rd on Hwy 190
1364 Crotalus cerastes fresh DOR \approx 2040 hr
- 20 May California Contra Costa Co., Briones Regional Park
1365 Eumeces skiltonianus (stomach contents of Lampropeltis getulus)
- 22 May California, Contra Costa Co., 1.5 mi E Bear Creek Rd on Alhambra Valley Rd.
1366 Pituophis melanoleucus fresh DOR 1320 hr 540g 1080+205 mm
- 2 June California, Alameda Co., Mines Rd. S. Tesla Rd.
1367 Pituophis melanoleucus stomach contents (snake released)
coll. M.T. Mendonca. 6 Microtus snake 43g 470+79 mm ♂
- 9 September \approx 2 mi N. California City, Kern Co., California
1368 Crotalus scutulatus AOR/DOR 0006 hr
5 mi N. California City, Kern Co., California
1369 Crotalus scutulatus 0948 hr 700g 920+71 mm ♂
- 10 September 1.1 mi S. Kelso Dunes Rd on Kelbaker Rd., San Bernardino Co., California
1370 Crotalus scutulatus juv. AOR 2028 hr. 9.7g 262+21 mm
- 11 September 23.5 mi N. Kelso RR Crossing on Kelbaker Rd, San Bernardino Co., California
1371 Crotalus cerastes AOR 2135 hr 140g 505+49 mm
0.7 mi N. Kelso RR Crossing on Kelbaker Rd., San Bernardino Co., California
1372 Crotalus cerastes AOR 2223 hr 24.5g 330+22 mm
- 12 September Pisgah Crater, San Bernardino Co., California
1373 Hadronus
- 3 October Jct. Kelbaker Rd & I 40, San Bernardino Co., California
1374 Crotalus scutulatus AOR 1530 hr coll. J.H. Carothers 2308 743+55 mm
- August Fincas La Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
1375 Lachesis muta

Greene, H.

1983

8 November

Costa Rica, Prov. Cartago, Parones Coll. F. Antonio

1376

Lachesis munita ≈ 80 cm ♀ scat only, deposit 12 Nov 83

Greene, H.

1984

24 March

6.1 mi E. Flynn Creek Rd on Orr Springs Rd, Mendocino Co., California

1377 Charina bottae 81.3g ♀ 498+61mm

1378 Charina bottae 53.1g ♂ 409+66

1379 Thamnophis couchii 24.2g 387+145

1380 Thamnophis elegans 65.1g 518+177mm

1381 Thamnophis sirtalis 43.5g 473+64+?

1382 Taricha rivularis

1383 Crotia Lemis

31 March

6.1 mi E. Flynn Creek Rd on Orr Springs Rd, Mendocino Co., California

1384 Aneides flavipunctatus juvenile

3.9 mi. E. Flynn Creek Rd on Orr Springs Rd., Mendocino Co., California

1385 Aneides ferreus

7.7 mi S. Corteche on Flynn Creek Rd., Mendocino Co., California

1386 Aneides lugubris

1387 Diadophis punctatus

14 May
~~April~~

Pisgah Crater, 4.7 mi W. of RR on National Trails Hwy, San Bernardino Co., California

1388 Crotalus cerastes AOR ~~2020hr~~ 12.5g 237+21mm

1389 Crotalus cerastes AOR 2020hr 55g 430+48mm

1390 Crotalus cerastes AOR 0.8 mi W. of RR 38.5g 329+30mm

1391 Crotalus cerastes AOR 4 mi W of RR 15.5g 272+25mm

1392 Rhinocheilus lecontei AOR 3.6 mi W of RR 35g 425+62mm

1392 Chionactis occipitalis ^{AOR} 2.6 mi W of RR

1393 Chionactis occipitalis ^{AOR} 0.5 mi W of RR

1394 Chionactis occipitalis ^{AOR} 1.6 mi W of RR

1395 Arizona elegans DOR 2.6 mi W of RR

1396 Chionactis occipitalis ≈ 6 mi W of RR DOR

1397 Chionactis occipitalis 4.4 mi W of RR AOR

Deane, H.

1984

- 14 May Near Pisgah Crater, 2.8 mi E of RR tracks on National Trails Hwy.
~~1399~~ San Bernardino Co., California
1399 Chironactus occipitalis AOR
-
- 1400 Chironactus occipitalis
Pisgah Crater, San Bernardino Co., California
- 1401 Arizona elegans ^D AOR ~~3.2 mi~~ 2.6 mi W. of RR 11g 313+40mm
- 1402 Arizona elegans AOR 74g 585+93mm
- Near Pisgah Crater, San Bernardino Co., California
- 1403 Arizona elegans AOR 3.2 mi E of RR 9.7g 320+42mm
- 1 ≈ 5 mi W. of Ludlow on National Trails Hwy, San Bernardino Co., California
- 1404 Phyllorhynchus securtatus AOR
- 15 May Kelbaker Rd E of Granite Mtns, San Bernardino Co., California
- 1405 Hypsizela torquata under Yucca log 330+51mm 13.5g
- 17 May Hwy 190 between Darwin Wash Rd and 4000' Vista Lookout, Inyo Co., California
- 1406 Trimorphodon biscutatus AOR 15g 430+72
- 1407 Trimorphodon biscutatus AOR 17.5g 410+78
- 1408 Crotalus mitchelli AOR 8g 250+16mm
- 1409 Crotalus cerastes AOR 19g 265+21mm
- 1410 Pituophis melanoleucus AOR 70g 625+95mm
- 1411 Phyllorhynchus securtatus AOR 5g 206+30mm
- 2 mi E. of Darwin Wash Rd on Hwy 190, Inyo Co., California
- 1412 Phyllorhynchus securtatus AOR 2230hr 5.5g 202+30mm
- 10 mi W. Darwin Wash Rd on Hwy 190, Inyo Co., California
- 1413 Lichanura virgatula DOR 12.5g 300+40mm
- 6.9 W. of Darwin Wash Rd. on Hwy 190, Inyo Co., California
- 1414 Crotalus cerastes AOR 245g 566+36

Greene, H.
1984

17 May 23 mi W. Darwin Wash Rd on Hwy 190, Inyo Co., California

1415 Crotalus cerastes AOR 80g 497+50mm

36.4 mi W. Darwin Wash Rd on Hwy 136, Inyo Co., California

1416 Crotalus cerastes DOR 130g 526+36mm

18 May 3.2 mi W. Panamint Springs on Hwy 190, Inyo Co., California

1417 Trimorphodon biscutatus AOR 2044hr 112g

Hwy 190 between Darwin Wash Rd and 4000' Vista Lookout, Inyo Co., California

1418 Trimorphodon biscutatus AOR 18g 435+91mm

1419 Trimorphodon biscutatus AOR/DOR 18.5g 421+82mm

1420 Chionactis occipitalis AOR

1421 Crotalus mitchelli DOR

1422 Crotalus cerastes AOR 12g 241+15mm

Between Panamint Valley Rd. and Darwin Wash Rd. on Hwy 190, Inyo Co., California

1423 Crotalus cerastes AOR 28.5g 320+23mm

1424 Phyllorhynchus decurtatus AOR 4g 185+30mm

26 May Pisgah Crater, San Bernardino Co., California

1425 Coleonyx variegatus AOR 2052hr at RR tracks

1426 Arizona elegans AOR 2103hr 1.2 mi W. of RR tracks 86g

1427 Crotalus cerastes AOR 2114hr 1.8 mi W of RR tracks 25g

1428 Crotalus cerastes AOR 2122hr 1.4 mi W of RR tracks 41.5g

1429 Phyllorhynchus decurtatus AOR 2126hr. 0.8 mi W. of RR tracks 32.5g
95g 765+121mm

1430 Trimorphodon biscutatus AOR 2137hr. 2.1 mi W of RR tracks

1431 Arizona elegans AOR 2146hr 0.6 mi W. of RR tracks 85g
30.5g

1432 Phyllorhynchus decurtatus AOR 2201hr. 2.1 mi W of RR tracks

1433 Crotalus cerastes AOR 2204hr. 1.9 mi W of RR tracks 21.5g

27 May Pisgah Crater, San Bernardino Co., California

1434 Crotalus mitchelli 0856hr. on flow, w/in 10m of edge 315g

Greene, H.

1984

27 May

Pisgah Crater, San Bernardino Co., California

1435

Chionactis occipitalis fresh DOR at 2037 hr, 1.7 mi W. of RR tracks 9.5g 272+45 mm 38.5g

1436

Trimorphodon biscutatus AOR 2106 hr, 2.1 mi W. of RR tracks 560+105 mm

1437

Phyllorhynchus decurtatus AOR 2109 hr, 2.1 mi W. of RR tracks 9g 250+21 mm

1438

Chionactis occipitalis AOR 2111 hr, 1.6 mi W. of RR tracks 9.5g 256+52 mm

1439

Arizona elegans AOR 2125 hr, 1.9 mi W. of RR tracks 16g 350+51 mm

1440

Chionactis occipitalis AOR 2136 hr, 0.7 mi W. of RR tracks 7.5g 7.8g 215+30 mm

1441

Phyllorhynchus decurtatus 2145 hr AOR, 1.7 mi W. of RR tracks 155g 730+111 mm

1442

Arizona elegans AOR 2156 hr, 1.4 mi W. of RR tracks 30.5g 395+65 mm

1443

Phyllorhynchus decurtatus AOR 2202 hr, 1.5 mi W. of RR tracks 27.5g 410+32 mm

1444

Phyllorhynchus decurtatus AOR 2202 hr, 1.3 mi W. of RR tracks

1445

Coleonyx variegatus AOR

28 May

6.3 mi. S. Kelso on Kelbaker Rd., San Bernardino Co., California

1446

Chionactis occipitalis AOR/DOR 2133 hr

11 August

11.5 mi W. Painted Rock Rd. on I-8, Maricopa Co., Arizona

1447

Crotalus cerastes under lava boulder, 1630 hr

≈ 5 mi S. Painted Rock Dam on Painted Rock Rd., Maricopa Co., Arizona

1448

Rana yavapaiensis AOR ≈ 2200 hr

13 August

0.5 mi NE of 200p Rd on Rd to Wukoki Ruins, Wupatki Natl. Monument, Coconino Co., Arizona

1449

Sabradora hexalepis DOR ≈ 0915 hr

9.0 mi W. Ludlow on National Trails Hwy, San Bernardino Co., California

1450

Arizona elegans AOR 2132 hr

0.2 mi W. Ludlow on National Trails Hwy, San Bernardino Co., California

1451

Phyllorhynchus decurtatus AOR 2153 hr

14 August

Pisgah Crater, San Bernardino Co., California

1452

Chionactis occipitalis 0.6 mi W. of RR, AOR 2035 hr

Greene, H.

1984

27 October Pisgah Crater, San Bernardino Co., California

1453 Crotalus cerastes AOR 1827 hr, 4.9 mi W. of RR, 451+31 mm, 85.9 g

1454 Crotalus cerastes AOR 1900 hr, 2.0 mi W. of RR, 412+39 mm, 61.2 g

4.6 mi. W. Darwin Wash Rd on Hwy 190, Inyo Co., California

1455 Trimorphodon biscutatus coll. J.H. Carothers, 18 June 1983 SV $16\frac{1}{8}$ " TL 3"

9 June Pisgah Lava Flow, San Bernardino Co., California

1456 Chionactis occipitalis, 1.0 mi. W of RR, 229+60 mm, 7.2 g Coll. A. Hacker

1457 Chionactis occipitalis, 2.0 mi. W of RR, 243+48 mm, 8.0 g Coll. C.A. Luke

1458 Chionactis occipitalis, 1.3 mi W of RR, 226+48 mm, 7.9 g Coll. A. Hacker

1459 Chionactis occipitalis, 0.7 mi W of RR, ²¹⁷⁺⁴⁴~~217+44~~ mm, 6.0 g Coll. C.A. Luke

1460 Chionactis occipitalis, 1.2 mi W of RR, 184+38 mm, 3.8 g Coll. C.A. Luke

1461 Phyllorhynchus decurtatus, 5.2 mi. W. of RR, 198+17 mm, 4.8 g coll. UNKNOWN

1462 Phyllorhynchus decurtatus 0.5 mi. W of RR, 412+59 mm, 42 g, Coll. A. Hacker

1463 Crotalus cerastes, 0.1 mi. W of RR, 290+27 mm, 28.2 g Coll. C.A. Luke

1464 Crotalus cerastes, 1.2 mi. W of RR, 385+43 mm, 47 g Coll. C.A. Luke

1465 Crotalus cerastes, 1.1 mi W of RR, 300+? mm, 31.5 g Coll. J.H. Carothers

1466 Crotalus cerastes, 0.8 mi. W of RR, 405+? mm, 79 g Coll. A. Hacker

1467 Crotalus cerastes 1.2 mi W of RR, 245+? mm, 16.4 g Coll. C.A. Luke
Coll: UNKNOWN

2 June 1468 Rhinocheilus lecontei, 5.2 mi W. of RR, 2215 hr 494+82 mm

U.C. Physical Plant, Jct. Centennial Dr. and Grizzly Peak Rd., Berkeley, Alameda Co., California

1469 Crotalus viridis Coll. Unknown, 2 June 1982

Pisgah Lava Flow, San Bernardino Co., California

1470 Crotalus mitchelli Coll. Unknown, 16 June 1983

1.5 mi. S. of ^{Hwy 178}~~Tirona Rd.~~ on Hwy 178, San Bernardino Co., California

1471 Masticophis flagellum, DOR., Coll. Unknown, 18 June 1983

Greene, H.
1984

19.5 mi N. of I-40 on Kelbaker Rd., San Bernardino Co., California

1472 Crotalus cerastes Coll. Unknown, 17 June 1983

Pisgah Java Flow on National Trails Hwy, San Bernardino Co., California

1473 Crotalus cerastes, 0.5 mi W. of RR, Coll. Unknown, 15 June 1983

1474 Crotalus cerastes, 9 mi W of RR, Coll. Unknown, 15 June 1983

1475 Crotalus cerastes, 1.6 mi W of RR, Coll. Unknown, 15 June 1983

1476 Crotalus cerastes, 1.1 mi E of RR, Coll. Unknown, 15 June 1983

1477 Crotalus cerastes, 3.2 mi W of RR, Coll. Unknown, 15 June 1983

10.3 mi N of I-40 on Kelbaker Rd, San Bernardino Co., California

1478 Rhinocheilus lecontei, Coll. Unknown, 17 June 1983

5.9 mi. W of Darwin Wash Rd on Hwy 190, Inyo Co., California

1479 Crotalus cerastes, Coll. Unknown, 18 June 1983, $14\frac{3}{4}$ " + $1\frac{7}{16}$ "

9 June Pisgah Java Flow on National Trails Hwy, San Bernardino Co., California

1480 Arizona elegans ^{1.3 mi W of RR} 694 + 116 mm, 110g Coll. C. A. Zuke

10 June Pisgah Java Flow on National Trails Hwy, San Bernardino Co., California

1481 Crotalus mitchelli, ≈ 250 m S. onto Flow, Coll. D. A. Good 812 + 66_{mm}

0.3 mi. E. of Darwin Wash Rd. on Hwy 190, Inyo Co., California

1482 Lampropeltis getulus Coll. J. Carothers 18 June 1983 SV $30\frac{1}{8}$ " TL $4\frac{9}{16}$ "

5.7 mi N. Baskanta, Tehama Co., California

1483 Coluber constrictor DOR, Coll. C. Mayer & S. B. Hedger 28 June 1981

H. Greene

1982-1984

Journal

1982 Costa Rica

Calif: Mendocino, Inyo, San Bernadino,
Riverside, Kern Cos.

1983 Calif: Kern Co.

1984 Calif: Mendocino Co.

Costa Rica

Oklahoma: Cimarron Co.

New Mexico: San Miguel, Cibola Cos.

Calif: Orange, San Bernadino cos.

[illegible]

H. Greene

1982-1984

Journal

1982

1982 Costa Rica

Calif: Mendocino, Inyo, San Bernadino,
Riverside, Kern Cos.

Greene, H.
1982

- 7 March Left San Francisco ~ 0030 AM, arrived San Jose, Costa Rica ~ 1530. Cab to hotel \$7.00, Hotel Galilea \$12 + tax. Dinner 110 colones (40 colones/\$). On the flight down got a nice sunset view of the Nicaraguan coast - in some places could see highlights of sheet of water among trees over big expanse of coast - swamps? Incredible clouds.
- 8 March Spent an hour after breakfast (40.7 col.) looking for botas de hule - rubber boots. Couldn't find any in the mercado or elsewhere. Caught Sansa flight to Rio Frio (160 colones), after a lot of trouble in the airport (I had a reservation but no ticket - which was better than vice versa). Picked up at Rio Frio by Bruce Williamson (OTS course coordinator) and Mo Donnelly (USC student). Rode to Puerto Viejo for beer and boots (240 colones), then by canoe across Rio Puerto Viejo to La Selva.
- 9 March Up early, and out on West River Trail w/ Mo. Went as far as end of property, then returned to AC lab and took a circle by way of the New Research Trail and back down the West River Trail. No snakes, but lots of frogs and lizards. Dendrobates pumilio everywhere, some calling. Two

Greene, H.

1982

9 March Finca La Selva, Puerto Viejo de Sarapiquí, Provincia
(continued) Heredia, Costa Rica

Phyllobates lugubris under logs. Several small frogs that I thought were Eleutherodactylus, but were E. biporcatus, a very small Rana warschewitschii, and a very small Leptodactylus pentadactylus.

These were in litter active, beside trail. Saw several Norops humilis in litter and N.

lineifrons on low vegetation. Saw a tiny greenish Eleutherodactylus on a leaf ≈ 15 cm

off the ground. 2 Bufo hematiticus hopping in the litter. A skink (Sphenomorphus

chenieri?) under a log, as was a Lepidophyma - it was under a fallen log's outer shell, ≈ 1 m \times 20 cm. 3 juvenile Anura festiva

in sun on the trail at 10:38, w/ 20 m of each other. After lunch, ≈ 1345 , a student ran in to say that a large coral snake was crossing a trail in the "Ecological Reserve" ≈ 100 m from the station. When I arrived it was just moving off the trail in full sun, a large ♀ (?)

Tampropethis triangulum. It thrashed & struck repeatedly when grabbed by the tail, and bit my jeans. This species has apparently not been collected at La Selva before. From $\approx 1430 - 1615$, walked East River

Greene, D.
1982

9 March (continued) Road and to Holdridge Trail 400, where a fire fell ≈ 1100 today. I found a Bolitoglossa ^(see 11 March) colonnea under a palm sheath 1m X 30 cm, on the ground. Craig Guyer found a Leptodeira in a bromeliad on the fall tree, and therefore until today it must have been many meters up. (Last night talked to David Clark about the 3 Lachesis muta that he's seen here. He was very impressed by their cryptic appearance, especially the way the irregular white dorsal spots look like sunlight splotches on the forest floor.). From 2030-2230 walked the New Research Trail w/ Mo Donnelly and Craig Guyer - found a rare frog, Eleutherodactylus albae, sitting on a "Parana Hat Plant", <1m above ground. Brilliant orange flash marks. Also brought back a small adult Leptodeira pentadactyla (missed a larger ♂) for telemetry. (see next page).

10 March Walked trail to arboretum and part of New Research Trail from 0700-0830. Saw a few anoles and small frogs, no snakes. Rained hard for a short time before dawn today, so everything was dripping. Saw either a broadbilled (Elaenia) or Rufous (Basileuterus) motmot land on a branch w/ a caterpillar in its bill, still holding to a leaf

Greene, H.

1982

10 March (continued) The bird shook the leaf free as it swallowed the caterpillar, while perched on a limb ≈ 3 m above the ground (trail).

(NB: Forgot to note that last night on the edge of Pejibaye Grove, where the New Research trail starts, I found a Mastigodryas melanodomus asleep 2 m above ground on leaves - I only saw it because of the bright orange belly - and earlier, ≈ 300 (?) m out on the New Research Trail, I spotted a Tepidophyma flavimaculatum - seemingly a large adult - sitting in an opening ≈ 1 m up on a large tree, w/in the upper boundaries of the buttresses. After a minute or two w/ lights on it the lizard turned and went down a hole. It was present as before when we returned by the tree later.)

Went out on New Research Trail from 2030-2230 w/ Beth Braker - saw no snakes, a few small Eleutherodactylus on leaves, and an adult ♀ Anolis capito on a palm leaf $\approx .5$ m above ground beside the trail. Tepidophyma was not visible in the hole I saw it in last night.

11 March Started down the West River Rd, but got caught by an OTS student (Sally Horn) who had seen a "2 m" black snake in the arboretum. We went back to where she'd seen it, initially crossing the trail at the opening of the large

Greene, H.
1982

11 March
(continued)

clearing. When we got there it had left, but at 20915 I found it motionless in grass under a bush. Seized it before it started moving, and it immediately began sticking and thrashing. After lunch we "measured" it at ≥ 2.1 m in total length. Has a few ticks. Then walked West River Road, Research Trail, and a section of an old Tower Trail. Saw numerous Eleutherodactylus and Anolis, and a juvenile ~~to~~ Rana Warschewitzii. Got back at 1205. (NB: Just handled the Bolitoglossa colonnea and it did some great watch-spring flip flops, as well as walked pretty fast.) About 1430 Joyce Tsugi (U. Washington) brought me an adult Leptophis depressirostris from the edge of the grove near the AC lab, from which I regurgitated a frog's legs. Walking back at 1545 Manuel Santana and I saw a rufous motmot land on a branch - very large bird! (The frog legs from the Leptophis are apparently Leptodactylus pentadactylus - a juvenile). After dark walked out New Research Trail to release L. pentadactylus - Tepidophyma was not at its hole in the tree. Nothing else of note seen. (L. pentadactylus from Leptophis has femur length of 23 mm).

Greene, H.
1982

12 March Went to arboretum and released Chironius
grandisquamis w/ transmitter at 0746 hr.
Kept track of it (mostly in a hole in a creek
ravine bank) for most of day. at ≈ 1130 hr
found a Kinosternon that fits scorpioides
except that it has a black ^{plastron} ~~carapace~~ (not
orange). ≈ 1500 got called to look for a
snake at ≈ 700 m on the East River Road - went,
couldn't find it, and returned to the Chironius.
At 1640 the Chironius left it's hole, disappeared
over the edge of the embankment, and got
called that the snake was in view again at 700 m
East River Road. It was a Bothrops asper, at least
5-6' long, ^(later guess 7' +) crawling among scattered plants
in mud flats at the bottom of a steep
embankment. I dashed out to w/in hook's
length ($\approx 5'$) of it, tried to gently lift it,
and it turned towards me. at this point
I discovered that I was over knee deep
in mud and that the mud was deeper
than my snake hook - and that I
could only move my legs w/ great difficulty.
Thought about trying to kill the snake if
it advanced on me, but it suddenly
moved very fast across a small stream and
about 4 m away. I jumped to a ~~lodge~~ log
across the stream (after dragging myself out

Green, H.
1982

12 March
(continued)

on a closer log). saw that all the surrounding "ground" was loose mud, and abandoned the snake. It was probably the most "calmly aggressive" and by far the fastest viper I've ever encountered. I didn't feel scared during the whole thing, but during supper and for a couple of hours later I felt pretty weird about being stuck in the mud near that snake.

13 March

out to arboretum by 0700 w/ Manuel Santana to look for my radio-tagged Chironius. Got the signal right away, along the Quebrada El Sur, but spent 2 hrs. fruitlessly searching ^{ing} the barks and heavy understory for it. Then \approx 0930 saw it on a small tree limb directly over the creek, \approx 10m up. Watched it move across the limb, down a vine thinner than it, and down into bush. (see separate notes.) \approx 1400 Dave and Debra Clark brought in an Oxybelis ameiva adult from near the AC lab. It muskied heavily as I palped a juvenile ameiva festiva (Head-first swallowed) from its stomach. Also gaped, hung limp, and then bit vigorously on my pants when hung free from my hand.

Greene, H.

1982

14 March

Out about 0730 to a tree fall where Manuel last radiolocated the Chironius yesterday. Sat til after 10, taking temperatures and waiting for the snake to show - but I finally peaked in the log and saw the transmitter lying in the floor of the hollow. It has been chewed by a rodent but seems OK. Caught a Centrolenella prosoblepon nearby. On the way back, got a gravid ♀ Sphenomorphus chersiei in leaf litter along the Arbutum Trail. Before we went out, Craig Guyer caught a small adult Pseustes poecilonotus - after much teasing I got it to briefly inflate, but it never gaped or struck. After lunch walked East River Road to successional plots and back, w/ side trips on a couple of loops. Easily hand caught a ♂ Norops capito. No snakes.

15 March

Calibrated a transmitter and then from 1000-1200, walked to ~600m on the Research Trail & back, then out West River Rd & back. Hot & sunny - lots of Amazilia festiva. Saw several rufous motmots (Myiophobus martinii) near each other and calling. Saw a gray-necked wood-rail (Arremonops cajana) beside a small stream - flicked its tail almost constantly. Also saw 2 what might be wood-quail (Oreotyx sp.)

16 March

Walked around arboretum ~0730-0930. Found a little gecko under a small log, which I think is Lepidoblepharis. Saw several Sphenomorphus

h

Greene, H.

1982

16 March
(continued)

Cherrier active on surface of leaf litter. at 0840, near the crest of the Arboretum (left of the trail) I saw a ≈ 18 " snake crawling in dappled sunlight toward a log and thought sure it was a Bothrops asper - but it is a Xenodon rhabdocephalus. As soon as pinned it strikes, gapes, flattens, thrashes - looks incredibly like a viper. When I let it bite a snake bag, the fangs are rotated to a surprising degree and repeatedly stabbed the cloth. After a few seconds there were obvious large wet areas of saliva/venom where the snake's mouth held the bag. Got live weights from Ricki Van Berken to match the pickled Ameiva festiva I palped out of the Oxybelis aeneus - the lizard has a snout vent of 50 mm or perhaps slightly greater allowing for shrinkage. She has live ones of SV 51, wt. 3.4 g, and SV 49, wt. 3.1 g. I'd estimate the prey at 3.5 g, since her lizards have been in sacks for a while. From 1400-1600 walked out West River Rd, turned trash in cacao grove, walked to ≈ 400 m on New Research Trail, over to Arboretum and back. At 1423 I found a Rhadinia decorata (fide Savage key, but has bright orange belly) crawling across trail at ≈ 670 m.

Greene, H.

1982

16 March

(continued) on the West River Rd. It apparently was startled by me, as it was crawling fast when I spotted it. Didn't bite. It is a gravid ♀ w/ two eggs. Turned 6-8 piles of limbs and trash in the cacao grove, but no heaps. Saw 1 Sphenomorphus active \approx 1500h on leaf litter at trail edge. From ~~0830~~²⁰³⁰ - ~~2130~~²¹³⁰h walked slowly down West River Road to 150m - saw no snakes or lizards, 3 Eleutherodactylus sp.

17 March Walked East River Road and Loop Trail til noon. Saw & photographed ♂ Anolis capito (SV 68mm) swallowing an orthop head first (grasshopper had greenish legs w/ black spots - maybe Eumastax). The anole was 1m up on the trunk of a small tree, head up at 0830h. Saw a few anurans and anoles and one Basiliscus sp. at 1945h put an ♂ Bufo ^(SV 46mm) hematiticus in w/ the Xenodon. Snake seems to be too upset - strikes at my movements and defensively (?) at Bufo as it hops by. Put sack back in for core and will leave food over night.

18 March Bufo had been eaten by Xenodon when checked at 0700. From 0730-1030 walked around arboretum, then out Sura Trail to ~~South~~^{West} Boundary Trail, then to New Research Trail and to station. At 0855 I found a small Masticodytes melanolomus crawling on palm litter, beneath a palm at the back of Arboretum. Very snappy. Disgorged 2 Norops humilis^(intact one had SV 35mm) that had been swallowed head first.

Greene, D.

1982

18 March
(continued)

at 0953 we saw a Caiman crocodylus ≤ 1.5 m total length swim downstream a few meters, until just below us on the little bridge where the Quebrada El Surá crosses the Old ^{West} ~~South~~ Boundary Trail. Rather black looking, and the head quite cryptic when resting on the surface. I took one picture and was moving closer when it suddenly snapped its jaws, thrashed and swam upstream and out of sight into some vegetation ≈ 15 m away. Stream here is a few meters wide and less than ^{0.5} m deep. After stopping at station for refresco, we (Manuel Santana & I) walked the East River Rd & Far Zoop Trail til it crossed the Quebrada El Salto. On the way back, at about 50 m from the ^{East} ~~West~~ R. Trail or Zoop trail, I caught a small adult Mastigodryas melanoleucus crawling rapidly on the trail away from me at 1146. It thrashed, spun, bit repeatedly, and smelled bad. From 1945-2200 walked w/ Ricki VanBerkum, Manuel Santana, and Beth Braker - went to Rio Puerto Viejo by "Rafael's House" - found Gnathypops boudini sitting on tree limb, 2 m above ground. Then walked to Q. El Salto on Far Zoop Trail, where Manuel and I waded downstream to the rapids, searching both banks for herps. Saw none. Beth found a hyliid on a low palm near the stream, and a green-boned hyliid (?) near the Puerto Viejo - too dry for herps tonight?

h

Greene, H.
1982

19 March Walked from 0800-1145: East River Road, Holdridge, East Hartshorn, Cethel, Far Loop just onto East River Rd, and back via entire Loop Trail. At 0942hr I found a deer cat track in mud in the swamp at a crossing of a small stream - from the size it must have been either Felis onca or F. concolor, and since the latter has only been seen here once the former is more likely. Two minutes later my pulse was 102, but no cat ahead. At 1014hr at ≈ 606 m on the Far Loop Trail an adult Erythrolamprus mimus crossed the trail and crawled ≈ 3 m rapidly before I caught it. Partly cloudy, sunny. While crawling the snake appeared unicolor purple or gray, and I couldn't tell it wasn't a Micruroides until after I'd pinned it and had a good look at the head. It thrashed and tail coiled as I caught it. At 1040hr I caught a large Leptophis depressirostris in the trail swallowing a treefrog headfirst. Was down the waist and disgorged it when I seized the snake. Snake thrashed and munched. This was at ≈ 150 m on the Far Loop Trail. The frog was making gular movements, and we rinsed it w/ water. When checked at 1300, it seemed fine. (12 - it is S. puma fide Jay Saroso)
Frog kept to Smilisca sordida in Sarago, SV 33.5mm, Head Width 11.5mm, wt. 5.5g. Weights and measurements for some other recent catches follow:

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19 March
(continued)

Mastigodryas melanodomus ^{has juvenile color pattern}, 18 March, 11.5 g, SV 338, tail 102

M. melanodomus, 18 March, 47 g, SV 590, tail 221
spots still clear but hard to see because colors
are same as ground color.

Rhadiraea decorata ♀, 16 March, 8.5 g, ^{SV} 217 mm, tail 132

Erythrolamprus rrimus ♂, 19 March, 80 g, SV 611 mm, tail 108+ (?)

Leptophis depressirostris, 19 March, 150 g, SV 1025 ^{mm}, tail 600 mm

L. nebulosus - just brought in by Manuel Santana
from near the AC Lab. Has something in stomach,
but I can't get it out. 18 g, SV 430 mm, tail 280 mm

Smilisca baudini, 18 March, 34 g, SV 75 mm

NB: When handled for measuring, the subadult
Mastigodryas bit readily; the big L. depressirostris
gaped and inflated and struck repeatedly.

After dinner went on a grasshopper census w/ Beth
Braker. Just as we started, P. Delibes found a small
Bothrops schlegelii ≈ 2 m up on a small tree
beside the East River Road, ≈ 100 m (?) from the
station. It was loosely coiled, resting on tender
leaves of a vine growing on the tree. Didn't
rush off when lifted free, but thrashed
and bit sideways when restrained. color
very reminiscent of the Sibon longiferus which
was found nearby in very similar circumstances
a couple of weeks.

Greene, H.
1982

20 March

Left about 0730 w/ Manuel Santana - walked East River Rd to Far Zoop Trail, out it to Central Trail to ≈ 700 m, and back via Near Zoop Trail. at 0830 I grabbed a large (≈ 2 m) Chironius grandisquamas as it crawled over a fallen log - snake thrashed, inflated body, and struck. This was at 290 m on the Central Trail. at 0958 grabbed a tiny Dendrophidion vinites (?) crawling rapidly off the trail at 480 m on the Near Zoop. Handling it later in the lab I saw it do a very Pseudos - like defensive display, except that the neck was not inflated vertically. Napped in afternoon. Entire evening shot by emergency w/ the cook, Eric, who seemed to be having a heart attack - took him by litter and jeep to Puerto Viejo, where an ambulance eventually took him to San Carlos - turned out to be gall bladder trouble. (See 22 March)

21 March

Walked to 700 m on the Central Trail w/ Manuel Santana and Beth Braker. Only snake was a Rhadinaea decorata at 275 m on the Near Zoop Trail, crawling in sun at 1006 h. Thrashed and muskied when grabbed. After supper went frogging w/ Jay Savage, Manuel, and Beths - 2 Bolitoglossa colnnea on leaves < 1 m above ground, 1 moving, 1 still; 1 Hyla sbraccata, several H. elaeochroa, several Eleutherodactylus.

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22 March

What a walkin' day! Left at 0830 w/ Manuel Santana and Jay Savage - Walked Far Zoop Trail to Hartshorn to Southwest Trail to West Boundary Trail to Near Research Trail and back in to Station. Found a gravid ♀ (2 eggs) Rhadinaea decorata crawling in sun/shade on leaves on trail at 0948 hr, 770m on SW Trail. On West Boundary Trail saw and photographed what we thought were Black Chachalacas but are evidently Crested Guans. Found a Coniophanes fissidens crawling on trail at 1126 hr on the Near Research Trail at 150m. Just before lunch Edwin Paniagua, the Station guard, reported seeing a Lachesis muta on the Central Trail near the Old South Boundary. At ~~0~~ 1300 hr we (Edwin, Manuel, me) walked to ≈ 1850 m on this trail and then ≈ 10 m in to the forest in a low, swampy place. The snake was exposed on dark soil behind (≈ 1.5 m) a large, old fallen tree. There were scattered short plants but little leaf litter. Evidently a female - short tail and Edwin says males are smaller - and certainly over 2 m long. She lay in a loose coil w/ head on body, motionless while I took many photos. When we finally touched her w/ a pole she tongue-flicked and finally crawled slowly away into a thicket. Never struck or made any movements

Henry H.

1982

22 March
(continued)

I would call threatening - seemingly a very calm snake. Edwin walks about twice as fast as I do, and the last $\frac{1}{2}$ was very hilly - about 8000 m round trip. (NB: forgot to mention on 20 March that I spent 2 hrs in early afternoon helping some people photographing snakes - and caught 2 juvenile Masticodytes melandermus crawling on leaf litter in the open in the Arboretum). (See 24 March for additions).

23 March

Spent most of day radiotracking a Chironius grandisquamis at 290 m on the Central Trail. (See separate notes.). Saw a Dasypsecta eating something nearby at one point, and Manuel saw a Nasua. We've had scattered showers lately, and today seemed very humid.

24 March

Spent \approx 0800 - 1030 and 1330 to 1630 following a Chironius grandisquamis E. of 290 m on the Central Trail (Manuel watched it other times). Saw an adult σ Basiliscus plumifrons on the Station steps at \approx 1300. (Forgot to mention on 22 March that walking out to the Lachesis sight we saw tracks of Tayassu and Felis onca on the Far Loop Trail, and some large mammal jump out of a tree and crash off - probably Nasua narica.) Beth Braher brought in an adult f Norops capito which we stomach pumped - got a fair

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24 March (continued) sized moth larvae out of it (Beth has data). She also brought me a large predator scat (Felis onca ?), full of coarse hair and a claw - sloth? This was found this morning (< 10:00 hours) at the big tree fall at ≈ 700 m on the Central Trail.

25 March arrived at 290 m on Central Trail and picked up signal of Chironius grandisquamus at 0814 hr. Looked for it til 0900, then left w/ Manuel via the Swamp Trail to the Sabalo-Esquina Trail (by way of cutting across Plott & the 1973 Plot). At ≈ 0945 hr at 1145 m on the Esquina Trail found a large Elutherodactylus biporcatus active in leaf litter beside the trail. At 1010 hr at ≈ 1710 m on the Esquina Trail I spied a ≈ 1 m Bothrops asper in a hole at the base of a stump ≈ 1.2 m high. This is on the east side of the trail in shade and adjacent to the river. Photos, then hooked it out and caught w/out trouble. Found and collected feces of Felis onca that seem to contain Tayassu fur at 1780 m on the Esquina Trail, then started back. As we passed the stump, I peered in a hole on the south side and saw a huge Bothrops asper, obviously

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25 March
(continued)

swollen w/ a meal. Tried to hook it out after photos, but it started out the other side. Hooked it onto trail, but couldn't get it's head pinned before it moved into thicket toward river. a very beautiful snake - almost black and gold and very velvety. Didn't seem particularly aggressive, but fast. Photographed the snake w/ Life Magazine people after lunch in the arboretum. From about 1630-1745 walked to 290 m on Central Trail to check Chironius (got signal) - no snakes. Went out w/ Life people from 1930-2100 on the Research Trail. Found a juvenile Leptodeira septentrionalis at 2038 m at about 80 m on the New Research Trail. It was crawling slowly up the axil of a young Welffia palm leaf, ≈ 0.5 m above ground. Saw several small Eleutherodactylus on leaves - food for a prowling snake?

26 March

Walked all morning w/ Manuel Santana and Michael ~~Santana~~ Melford (photographer from Life magazine): went to 290 m on Central Trail and got signal from the Chironius. Then walked by way of El Swamp Trail to stump where I caught the Bothrops asper and released it. Didn't see big one. Spent the afternoon helping Michael photograph snakes.

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26 March
(continued)

at supper David Clark brought in a Sibon nebulata from near the AC lab, in forest. When handled it made a rather tight coil, not quite a ball, and "coiled" the quadrates such that its head was very quadrangular. Forgot to mention that at 1105 hr at 720m on the Holdridge Trail, I saw a large adult Ameiva festiva moving at a moderate rate (as in normal foraging behavior) on a large fallen tree, about 1m above the ground.

27 March

Walked to 290 m on Cental Trail, got signal of Chironius grandisquamis in forest ≥ 100 m NNW of original capture site. Then walked across El Swampo Trail & then out Sabinal-Esquina Trail to 2300 m. at 1035 hr saw a Rana, maybe R. palmipes, jump into the creek at ≈ 2200 m. Took a swim in the waterfall near the station just before lunch. Got a very large Sibon nebulata that Craig Guyer found crossing the trail by the AC Lab. Behaved as the other one - head made ~~to~~ very wide by spreading quadrates. I haven't been keeping careful notes on birds, but among those seen are the following (names are as in a mimeographed "Checklist of the Birds of La Selva and Vicinity" by F. Gary Stiles,

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27 March
(continued)

1977:

Grey-necked Wood-Rail, Aramides cayana - along
small stream crossing West River Road

Tinamous - heard calling frequently, and
two seen. One was definitely a Little
Tinamou, Crypturellus souls, and
one (♀ w/ young) was probably a ~~Slaty~~
Great Tinamou, Tinamus major.

Chestnut-bellied Heron, Agamia aganei - evidently
a very rare bird, seen on the Quebrado
Sabalo.

Spectacled Owl, Fulsatrix perspicillata - seen
once on a limb in front of the
Station, and once flying across the
East River Road ≈ 100 m from the
Station.

Violaceous Trogon, Trogon violaceus - one
seen on limb of tree in front of
Station.

Broad-billed Motmot, Electon platyrhynchum
- seen at least once on trail to the AC Fab.

Great Rufous Motmot, Baryphthengus martii
- seen and heard frequently in forest.

Black-cheeked Woodpecker, Centurus pucherani
- seen in tree just N. of station

Flint-billed Woodpecker, ~~Phloeositta~~ Phloeositta
guatemalensis - pair near trail to AC Fab.

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27 March
(continued)

Slaty Antshrike, Thamophilus punctatus - pair
seen in forest ≈ 600 m on Central Trail.

→ (maybe not - cf. Tawny breasted)
Bulphur-rumped Flycatcher, Myiobius barbatulus -
one seen near bridge in the Arboretum

Band-backed Wren, Campylorhynchus zonatus -
one seen in tree, nesting ^(?) around clump
of bromeliads, at edge of Station.

Montezuma Oropendola, Gymnostinops
montezumae - heard and seen frequently.

Crested Guan, Penelope purpurascens - ≥ 3 seen
near West ~~River~~ ~~Road~~ Boundary Trail.

Sun Grebe, Heliconia fulica - one seen
on the Quebrada El Salto where it crosses
the Far Zoo Trail.

28 March

Spent most of the day helping the Life Magazine people,
loafing, napping, and getting ready to go.
after lunch Bret Whitney (?), leader of a group
of birders for Victor Emmanuel Tours, Austin, TX,
told me he saw a Semipalmated Hawk,
Leucopternis semipalmata eating a snake
 ≈ 40 ft. up in a tree. Snake's head and part
of body were gone. Said it had bright red or
orange belly and a green or olive dorsum.
He also saw a Nunbird and a Motmot each
eating a frog in the Arboretum yesterday.

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29 March Up early and left by jeep for San Jose w/
Donna Haupt (Life Reporter), Beth Braker, and
Helen Young. Stopped for pictures at a rubber
plantation and at El Salto Falls, and made
it into San Jose \approx 11 AM. After lunch and
checking w/ the National Parks office, rented a
tiny Toyota pickup and drove to Santa
Rosa National Park, arriving after dark. Ate
a huge, delicious steak at El Bramadero
in Liberia. Put up hammock in the
dark, under a guaracaste tree.

30 March Santa Rosa National Park Guanacaste Province, Costa Rica

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16 ~~th~~ April

Left Berkeley in the early after noon w/ John Cadle and 16 students in zoology 165 for Mendocino Co. Stopped in vicinity of Staggs Springs in Sonoma Co., but couldn't get access. Cadle then went by Coastal route and stopped for some collecting, while I took 2 cars up Hwy 128. Camped at Kinky Woods State Park.

17 ~~th~~ April

1.7 mi N. Hwy 128 on Flynn Creek Rd.,
Mendocino Co., California

This is an area of streamside forest beside a stream on the west side of the road, w/ open areas and ties from an abandoned railroad line. Spent about 1 hour here and got Aneides flavipunctatus, Ensatina, Taricha granulosa, Batrachoseps, Hyla, Eumeces, ~~and~~ Genhonorotus coeruleus (DOR), and Thamnophis elegans (DOR).

6.1 mi E. Flynn Creek Road on Orr
Springs Rd., Mendocino Co., California

This is coniferous forest (great vistas) on a ridge at a place where there is an abandoned truck, lots of lumber strewn about, and other trash. There are small, shallow pools at the roadside w/ many tadpoles of Hyla and a few transforming frogs too.

Turning boards and some logs in the

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1982

17 ~~th~~ April
(continued)

forest, we found Bufo boreas, Batrachoseps,
Aneides fessius, A. flavipunctatus,
Eumeces, Taricha granulosa, Sceloporus
occidentalis, Thamnophis elegans,
and Chasmodon. One Chasmodon (HWG1126)
was a very battered juvenile, and one
was an adult male. From the latter
(HWG1127) I palpated 2 nestling moles
(Scapanus sp.) that had been swallowed
head first.

9.1 mi E. Flynn Creek Rd. on Orr Springs Rd.,
Mendocino Co., California

This is an old road cut w/ a small trickle
in it, coming down a steep hill on the
S. side of the road. We found Aneides
flavipunctatus, Batrachoseps, Taricha
granulosa, Ensatina, Hyla, Eumeces,
Gerrhonotus coeruleus (1 active at water's
edge ≈ 1400 hr), Sceloporus occidentalis,
and 4 Diadophis. The Diadophis were
under logs and all tail coiled when
handled or, in case of the largest, when
its cover was lifted. Claudia Juke found
Lynx rufus feces on ground beside
the stream.

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17 ~~18~~ April
(continued)

Dark Gulch, 1 mi N. of Albion, Mendocino Co., California
Spent \approx 1 hour here, 1600-1700, but got no Rhyacotriton. The places on the upper slopes that were formerly rivulets were dry, the seemingly OK spots nearer the main stream also had none. Did find Batrachoseps and Dicamptodon larvae.
Barton Gulch, 4.3 mi E. of Hwy 1 on Hwy 128, Mendocino Co., California

This is an old road going NE from the Hwy, bordered on the left by a swamp and the right by a steep slope. Fallen trees and other litter suggest recent high flooding. Found Amphystoma gracile egg mass on a tree limb \approx 1 m above the water, as well as two others in water (these had algae). Also Hyla, Ensatina, Batrachoseps, Taricha rivularis, T. granulosa, and a small Thamnophis sirtalis. I found Lynx rufus feces (not fresh) on a moss covered log across the trail, \approx 1 m up.

18 April

17.2 mi E. of Hwy 1 on Hwy 20, Mendocino Co., California

This is open forest of large trees and many fallen logs. Here we found

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18 April
(continued)

Aneides feneus, A. flavipunctatus,
Batrachoseps, Ensatina, Eumeces,
Genhorotus coeruleus, and Thamnophis
elegans.

4.1 mi W. of Willets (at Hwy 101) on Hwy 20,
Mendocino Co., California

This is a place of open grass and oak covered slopes, w/ many old logs and stumps. We found Aneides flavipunctatus, Ensatina, Taricha granulosa, Eumeces, Sceloporus, Genhorotus coeruleus, and G. multicarinatus.

Weather seemed perfect - warm to hot, very sunny, but this is the first of such this spring and soil under logs was wet and cold. Perhaps that's why we found so few snakes (e.g. no Lampropeltis or Crotalus).

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7 May

Left Berkeley ≈ 1030 hr w/ David Cundall (Zehner U.), Kurt Schwenk, and George Schwenk. Arrived at Darwin Falls parking lot ≈ 2240 , after dinner in Olancho and a beautiful full-moon drive. Got 2 Crotalus cerastes in the Owens Valley at 2057 & 2124 hr, after moon was up and before it was really bright. Very windy at times.

8 May

Darwin Falls Canyon, Inyo County, California
Up at 0700. From $\approx 0800 - 1030$ we ~~split~~ split up and looked for lizards on the canyon floor & walls, N. of the parking area. Not many lizards out, but we got 3 Sauromalus obesus, 1 Callisaurus, and 1 Cnemidophorus. I missed a Uta and Kurt saw a Crotaphytus bicinctores. Walked to the falls and back, leaving $\approx 1330 - 1400$. Saw a kingfisher, a little blue heron, and a hawk w/ a lizard or snake in its talons. Saw numerous Cnemidophorus and 1 Bufo boreas in the lush part of the canyon. Was surprised to see a large section dry because of a diversion ditch carrying water to a pipe.

Trona Road, 1.0 mi. N. jct w/ Hwy 395,

Found an adult live Crotalus mitchelli on the road at 1551 hr. It rattled. No rocks nearby - creosote shrub - but hills on

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1982

8 May
(continued)

either side of road w/in $\frac{1}{2}$ mile. Winds were really high and all sky obscured by dust by the time we reached Kramer Junction, so we decided to get a room in Barstow. Drove to Pisgah, walked around at dusk, and road hunted. Got 5 Coleonyx and 1 Crotalus cerastes, the latter containing a large prey item.

9 May

Pisgah Crater, San Bernardino Co., California
Arrived here \approx 0830, after motel in Barstow & breakfast at the Sidewinder Cafe in Newberry Springs. Guy behind us there claimed to be on the "Fish & Game Commission" and had a good natured argument w/ me about whether the world would be better off w/out sidewinders! I asked if we should bulldoze down ~~the~~ cliffs 'cause people fall off them, but he quickly told me that was a poor example - cliffs don't hide and jump out at you. Very windy at the crater and we saw relatively few. Enemidophorus tigris was the most commonly seen lizard, and one pair (?) broke from mating as I approached. Female ran off, leaving the male w/arched tail and everted hemipenis. Also got 1 Urosaurus, 2 Uta, 4 Uma, and I saw 2 Saurornis. Saw several carnivore scats and Dave saw tracks that indicated a bobcat x snake encounter. Ate lunch in Tulelow.

Green, H.
1982

9 May
(continued)

Arroway Crater, San Bernardino Co., California
Stopped here for ≈ 30 minutes at ≈ 1400 h,
where the flow is adjacent to Natl. Trails Hwy.
Saw 2 Sauromalus, 3 Dipsosaurus, and
1 black ♂ Uta. Both here and at Pisgah
saw numerous fresh chunks of lava, evidently
crumbled off by chuckwala hurlers. Got a
room at Motel 6 in Indio, then drove to the
large isolated rocky hill E of Cahilla Co. Park,
at the end of Jefferson Street. Spent ≈ 1 hr at
 ≈ 1730 h here — very windy — saw nothing,
ate dinner in Indio, and since bark sign
at 1945h said 64°F and it was very windy,
we decided not to road hunt tonight.

10 May

Snow Creek Canyon, Riverside Co., California
Came here after breakfast and hunted lizards ≈ 0900 -
1200. Sunny and warm then wind down, but more often
chilly and extremely windy. Saw a few Uta down
low and several Cnemidophorus on the flats by
Snow Creek Village. Up on the boulders saw several
Petrosaurus and nosed them w/out difficulty,
but saw few Sceloporus orcutti and they were
very wary.

(at Hwy 18)
28.3 mi S. Lucerne Valley, on Hwy 247, San Bernardino Co., Cal.
Stopped here at ≈ 1530 -1630 — creosote scrub w/
large boulder piles near road on each side.
Saw 2 Sauromalus, several Cnemidophorus,

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10 May
(continued)

and caught 7 Uta and 1 Sceloporus magister.
Discovered my camera isn't working! Got
rooms in Newberry Springs, dinner at Sidewinder
Cafe, and rode hunted on National Trails Hwy
from 1930-2130 hr. Got 2 Crotalus cerastes &
1 Coleonyx. Moon still not up when we quit,
but still cold and windy.

11 May

Pisgah Crater, San Bernardino Co., California
Breakfast at the Sidewinder, then arrived here
≈ 0830 hr. Parked on road to crater, ≈ ½ way
from National Trails Hwy. Walked around for
two hours - cold, windy, partly cloudy. Saw
1 Sauromalus in crevice, 1 Uma, several
Uta and Cnemidophorus. Collected 4
Tyrannus rufus seats and saw tracks in
sand at least twice. Dropped George off
at the bus station in Barstow, and ate lunch.
Went to Cal City & got room - rained on the way.
2.5 mi NW Mojave (Hwy 58) on Oak Creek Rd., Kern Co., California
Spent 1 hour here searching under Joshua tree logs -
cloudy, windy, chilly. Got ≈ 15 Xantusia and
2 Sceloporus magister under logs - a yearling ♂
and a larger juvenile ♀.

12 May

3-5 mi N. California City, Kern Co., California
Arrived at dirt parking area on W. side of Tortoise
Reserve (coming from jct. Phillips & Neuralia Rds.)
at 0900 and walked around there til 1100. I went

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1982

12 May
(continued)

west to the first ridge, then N to the road and beyond on a 2-track road for ≈ 100 m. Then W to next ridge, S. to main road, E to the 1st ridge by the road, and S. for several 100 m on the poor dirt road just W. of the ridge. Saw 12 Gophers, from 100 mm carapace to large adults, several eating. also Uta, Cnemidophorus, and 1 Gambelia (escaped in hole). at 1030 hr saw an adult Crotalus scutulatus crawling slowly across the road ≈ 20 m ahead of me - coiled, rattled, then tried to crawl off as I approached. Struggled when pinned, and had palpable food in stomach. From 1100-1300 drove S. on the dirt road then back to parking area and W. to Navalía. Saw numerous Cnemidophorus and Callisaurus, 6 Gambelia (caught 4), and 5 Phrynosoma. Two of the Phrynosoma were found at the roadside at 1250 hr, σ^7 riding on the f^7 - even ran for several m like that. His penes were not out when captured, so he was evidently feeding rather than copulating. Lunch & gas in Mojave. Drove to Darwin Falls and hunted rocky slopes from 1700-1830 - saw nothing. Road hunted starting at 2000 hr - went to Vista lookout on 190, back to Panamint Valley Rd, then W to Olancho for dinner and back to Darwin Falls canyon to sleep

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1982

12 May
(continued)

at \approx 1 AM. Got a peculiarly patterned Coleonyx as we descended into the Owens Valley (HWG 1159) and a subadult Crotalus mitchelli between the Vista lookout and Darwin Road.

13 May

Up at 0700 and on the road \approx 8. Saw two Gophers crossing Trona-Wildrose Road just south of the supposed N. boundary of its range (a ridge/pass), at 9.2 mi (0901 hr) and 5.1 mi N. of the San Bernardino Co. line. Got a DOR adult Crotalus cerastes (several hours old) at 0955 hr on Garlock Rd. Got a small adult Masticophis flagellum AOR 1021 hr on Hwy 14. Snake musked and bit when seized (and I tore my pants!). Saw several large Sceloporus magister on boulders and on roadside along Redrock-Randsburg and Searles Station Roads. Coffee in Mojave. Ormand, Ventura Co., California

1415 - 1450 we turned trash in a vacant lot on the NE side of Harbour Blvd. Got 6 Anniella & 2 Uta, and saw numerous other Uta and/or Sceloporus. Arrived in Berkeley \approx 2300 hr.

15 May

Conal Hollow Rd., San Joaquin Co., California
arrived here to road hunt w/ Kurt Schwerdt & David Cundell \approx 2015 hr. Saw juv. Genhorotus multicarinatus running/lateral undulating across road at dusk (2032 hr), and a very large Lynx rufus bounded across at \approx 2045. Got Bufo boreas (2047 hr) and Scaphiopus

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1982

15 May
(continued)

hammondi (x 2055 hr). Found 4 live Crotalus viridis, 2 live Pituophis melanoleucus, and 1 live Arizona elegans - all catalogued. Also saw 2 Pituophis and 6 Crotalus too smashed to save, all no larger than those we collected. Were somewhat harassed by a policeman from Site 300.

11 June

Conal Hollow Rd, San Joaquin Co., California

Trip to Castle Rock w/ Zoology 107 class. Cool & windy. Just as darkness fell some students saw a Lampropeltis getulus crawling along the base of the bluff.

My car saw no snakes, a few toads (Bufo boreas and Scaphiopus hammondi), and a badger, Taxidea taxus, on the road.

20 June

Left Berkeley \approx 1530 hr w/ Kristine Tollesburg and drove to Lee Vining for the night. Stopped to turn logs at a likely looking spot in the Sierra, but nothing.

21 June

H. Greene

1982-1984

Journal

1983

Costa Rica

Calif: Kern Co.

1983

9 January Left Berkeley on 8 AM flight to Miami. Early dinner w/ Jay & Becky Savage, then flight to Costa Rica, arriving at ≈ 9 PM. Picked up at air port by Cathy Pimpl and others.

10-11 January Spent two days in San Jose getting a collecting permit from Parques Nacionales, buying supplies, etc. We stayed at the Hotel/Apartamento Moravia - very nice & friendly.

12 January Carrizal, Prov. Alajuela, Costa Rica 1440 m
On the way to the Zona, our Toyota broke down at this little junction. Michael Grayum, a plant collector from U. Massachusetts, tore down a Monstera aroid from ≈ 2.5 m up a tree, beside a small stream to the right of the road at the first curve past Carrizal. In one leaf axil were 2 small Centrolenella that seem to be C. illex.

Camp beside Quebrada Cantarana, ≈ 10 km WSW Puerto Viejo de Sarapiquí, Provincia Heredia, Costa Rica

We arrived here ≈ 1600 , after a long bumpy trip in w/ land cruisers and a tractor - the latter, surprisingly, unable to cross the Rio Pelje.

Set up camp and walked around. Frogs calling (Eleutherodactylus, hyla?) but couldn't find them. Not raining. ^{Bufo in camp ≈ 1900 .} Walked up hill after dinner. Saw Sylvilagus on road cut, no frogs on vegetation. ≈ 2050 hr found an Eleutherodactylus & a Smilisca sitting on a .

1983

12 January large downed log in grass behind our camp. also (continued) an Ameiva moving beside one (!) log, which escaped. These were ≈ 2145 hrs.

13 January at 0545 Carlos Gomez found a large Bufo haematitius in camp. Began raining ≈ 0600 . after breakfast I walked up the stream just W. of camp, took the smaller stream that branches just S. of the ford, and walked up it (≈ 100 m) til it forked. Saw a ringed kingfisher just before I entered the forest. at the ford, but nothing along the stream. Next turned logs in the grassy area just S. of the ford, and found a Bufo coniferus under a small log, almost black in color. Then a small Eleutherodactylus active in low grass. Walked ≈ 200 m ~~E.~~^{W.} on road from ford, nothing on leaves or under bark or logs. after lunch walked E. on track out of camp, to the fence at someone's ranch. Met Hartshorn, Stiles Mario, and the ranger, then Carlos and Isidro. They had seen a Tamandua and tracks of white faced Monkeys, Felis onca, Mazana, Tayassu (collared) and paca. Walking back got a Dendrobates pumilio and an Eleutherodactylus. at ≈ 1645 a ♀ Anolis limifrons at base of a support post in camp. George and Michael brought in an Anolis tropidolepis and a Rana warszewitschi found at ≈ 190 m along the big stream by camp. The ranger saw a "water opossum" (Chironectes?)

1983

13 January
(continued)

along the same stream last night. As dusk comes it is still raining - has almost continuously all day. Walked up hill from camp after dark, 1900-2015, saw & caught only a single small hylid (juv. Smilisca or H. ebracata?). Very few frogs calling, despite the rain - still pouring at 2200.

14 January

Still raining and we all slept late and drank coffee til mid morning, except Gary Stiles, who walked up the trail to the "ranch" and shot a white hawk, Leucopternis. [While in San Jose I talked to Jeanne Stout, aquatic biologist from Michigan State U., about snakes at La Selva. She once saw a cinnamon chick running down a trail, chased by a Spilotes. She also once heard a rattling in dry leaves and saw a small Lachesis making the noise by vibrating its tail. Since we arrived here Gary Hartshorn told me he measured a Lachesis at La Selva that was over 3m long; he has photos and exact measurements.] Yesterday I talked to Jorge, a 19 year old who lives here and cuts pasture for the owner (who doesn't live here). He carries a 16 gauge shotgun because he fears jaguars, and ties his little dog (a beagle) up all the time for the same reason. Says last year a jaguar near here killed ~20 dogs, and many men hunted for it til it was killed. Rain continued all day. After lunch I walked 1300-1600 hr on a newly cut trail

1983

14 January
(continued)

W. of the Quebrada Cartasana. The trail goes up just E of the small side stream I followed earlier. Today I walked up and down the trail over two ridges. Got Eleutherodactylus, Rana warszewitschii, and Dendrobates pumilio active on the forest floor; and Rhadinaea decorata and Tepidophryna flavimaculatum under small logs. The Rhadinaea squirmed into the mulch when I tore open the log, flashing the orange belly, and discharged cloacal contents when handled. It is very opaque. Carlos Gomez & Isidro Chacon went farther on the trail and brought me some frogs, a tiny Anolis, and an Imantodes anchoa apparently killed ~~on~~ yesterday by the trail cutters. I went to a pool just upstream from the Quebrada to bathe, searched under some cobbles among moss, ferns, and liverworts, and caught a Tepidoblepharis ~~xanthostigma~~ ~~lugubris~~. The ranger saw large jaguar tracks today, in the forest W. of camp. After dinner, I walked up the trail E., saw nothing on trail but found Eleutherodactylus hopping in grass as I got near camp on return. Only occasional frogs calling.

15 January

Stopped raining $\approx \frac{1}{2}$ hour during the night side Stiles, and again about 8 AM, but started up again. These Temporales last 2-5 days according to Hartsborn.

1983

15 January
(continued)

This morning at breakfast the ranger talked about local mammals. Said still sees jaguar tracks frequently. also tapis and collared peccary, but says white lipped peccaries are hunted out. From 0945 - 1140 hr I walked up the Quebrada Cartarana from camp and back. As soon as one leaves the cut over area it's nice open forest on either side. Just at the forest edge I pulled down a fair size bromeliad from ≈ 3 m up a small tree beside the stream and found a Leptodeira inside w/ opaque skin. wriggled and cloacal discharge, moderately smelly. Shortly thereafter saw an Anolis lionotus run on a boulder at the water's edge. Saw no other herps, raining the whole time. after lunch tore up several large bromeliads on the ground in grass by stream - nothing. Walked in grass at base of forest trail, got moderate size Eleutherodactylus and missed a bigger one w/ a bright stripe down middorsum. Found a tiny Bufo holdridgei hopping on a fallen log at the forest edge. Walked ~~foot~~ trail out several hundred meters, got only a juv. Rana warszewitschii and a Peripatus. Raining hard all the time and I got cold - came back ≈ 1530 hr find Stiles has shot a bar necked umbrella bird. After dark I walked E of camp for 30 minutes and saw nothing. At 1945 hr Stiles found a ♀ Anolis biporcatus in grass at a black light and sheet he set up to attract moths.

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15 January
(continued)

It was more or less solid light green when first handed to me, with yellow eyelids. After a few minutes of handling it had dark splotches on the dorsum. Seems to be a ♀ w/a very small dewlap, bluish white w/black spots.

16 January

Left at 1000h w/ Michael Grayum and Eladio Lopez (ranger) started up the Quebrada Cartasana but w/in 100 m turned W. into forest and bushwacked for $\approx 1\frac{1}{2}$ hours, checking in holes, buttresses, etc. w/a light for snakes. Came to newly cut trail, turned south, and w/in 20 minutes encountered Hartshorn, Mario Rodriguez, and the two trail cutters at a stream. By then we had caught (and seen) only a single Dendrobates pumilio and seen tracks ~~and~~ of paca. One of the trail cutters, Tonio, had just caught a Sphenorhynchus cherriei on the next ridge, which we checked out. Hartshorn called it cloud forest. Even farther, Tonio had seen Tapirus tracks. Eladio, Michael, Gary Hartshorn and I then walked downstream, starting at ≈ 1245 h. We soon met a larger stream coming in from the right, then a nice waterfall, then a much larger waterfall in a very deep gorge which we had to skirt. Arrived at camp ≈ 1430 h. Isidoro Chacon and Carlos Gonzalez had been in forest off the trail east of camp, and brought me a pretty Eleutherodactylus. They saw "Monos colorados," Ateles. Since

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- 16 January (continued) around 1400 the clouds have cleared higher and it more or less stopped raining for ≈ 1 hour. Also the creek seems a little lower today, so we are all hoping for better weather. Forgot to mention that at the point where the new trail met the branch of Quebrada Cartasana, where we met Tonio and Gary, there was a pile of spines at the side of the creek that appeared to be Proechymys.
- 17 January Left camp ≈ 0745 in rain w/ Gary Hartsorn, going up the road E. A few hundred meters from camp we crossed a fence into a clean cow pasture and found fresh scat and one clear track of Felis onca. A few meters further, scat we didn't recognize, maybe peccary (smelled like pig). Caught a small Anolis along the trail. Reached a little thatched shed, and caught a larger Anolis w/ an orange dewlap. Turned N and followed an old trail along a ridge paralleling the Rio Guacimo, which we could hear and at one point, had a spectacular view. Saw several Dendrobates pumilio and got two Eleutherodactylus. El. along the ridge $\approx 1040'$. Finally hit a caril or Trucha - a sort of trail / rut - road and by walking E., hit the river at 1145 hr. Got Eleutherodactylus w/ red spots on dorsum along the caril. The Rio is large and swift. An Anolis w/ a middorsal stripe was on a down tree ≈ 100 m.

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17 January
(continued)

in diameter at 0.5 m off ground. Belly yellow. As we walked W. on the canal I caught an Anolis lionotus that jumped into a large puddle on the very muddy trail. Reached Quebrada Cantarara and walked NNE until we reached the road we'd driven in on. Between the two I caught a fair sized Eleutherodactylus that has red thighs and light rusty dorsolateral stripes. By 1337 hr we were near a ridge top w/ wild cacao growing nearby. Again I noticed many earthworms under surface objects. Back to camp \approx 1420 hr. Antonio Mena Rojas had cut more trail SW of camp today, and brought me Anolis, Eleutherodactylus, and an Oxybelis brevirostris. With considerable puddling it inflated the anterior slightly and drew back the head and gaped, then slowly struck. Also kept the tongue extended at times when we photographed it. Cathy Pringle brought me a little gecko found among rocks by the Q. Cantarara, which I catalogued as a Lepidoblepharis but might be a Sphaerodactylus. Michael Hayum brought me a Dendrophidion he found in forest near the big fall on the Quebrada. It tried to bite when he seized it. The snake is generally a velvety brown w/ slightly lighter crossbands when undisturbed.

1983

17 January When held firmly and poked it holds anterior
(continued) part of the body straight and inflates, exposing
the light blue interstitial skin and causing
the snake to look light and dark blue - a
very striking color change. On further
head-on prodding it gaped, drew back, and
struck. Forgot to mention that we heard
Alouatta howling to the SE as we came back
into camp this afternoon. Gary Stiles shot
a Black Hawk Eagle and a Crested Hawk
Eagle, the latter as it was apparently
trying to catch a guan. The sun finally
came out and we saw blue sky \approx 1330
today, and as of 2000hr it hasn't rained since
 \approx 0900 today. We are all in good moods for this
and because collecting was better today.

18 January Very foggy this morning, but by \approx 0900 partly cloudy and
getting hot. I walked through flooded grassy area
across Q. Cartavana and saw numerous Bufo holdridgei
(two collected) and several of the fat bodged Eleutherodactylus
-traced a soft mew call to it, and eventually caught
a couple. Also preserved a few of the large black
radpoled that are conspicuous in the larger (≥ 1 m
in greatest dimension) pools. Walked two circuits of
forest trails on the first ridge, but saw only one
active Anolis (cf. limifrons) and many "balas"
(Paraponera). Searched buttresses near the

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18 January
(continued)

Quebrada crossing, and encountered Jorge (19 year old who weeds a beige grove near here) carrying a large Micrurus nigrocinctus he found. It was still moving, the injured, waving its coiled tail and biting a lot. Interestingly, he had chopped off the tail tip! After lunch Jorge and I walked E to the little ranch, then N. into the forest for a few hundred meters - two hours round trip. Saw only an Anolis, a few of the Eleutherodactylus w/ red thighs I'm no longer collecting, and a group of white faced monkeys. Very cloudy and humid. Back at camp, at 1536 hr, it started raining again! Quit at 1605. Mike Grayum brought in a Rhadinaea decorata; Gary Hartshorn four Eleutherodactylus that I haven't seen before, from the Quasimo Ridge trail we were on yesterday; Cathy Pingle a Dendrobates pumilio and a Bufo haematiticus from forest near the Quebrada Cartarana; and Antonio a small Imantodes, a giant Anolis, a pretty Bufo, and a bright lime green Atelopus. The Imantodes he found in a plant that he cut that sounds like Diefenbachia; it crawls when held, but shows no defensive behavior. The Anolis he knocked off a tree trunk, and it is a gravid ♀. He found the Atelopus at the highest point he's cut trail, along a stream into the Rio Peje. Found an adult Bufo haematiticus in the road between camp and the Quebrada Cartarana at x1930 hr.

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19 January Left 745 w/ Carlos Gomez on the ridge trail that goes from just W. of our camp to the Rio Peje. Carlos dropped off to set up a net for birds at a creek. Reached 1280' on the trail at 1000 hr. Saw an Eleutherodactylus w/ red thighs and a couple of Anolis. Partly cloudy. Caught an adult ♂ Anolis limifrons at 1200', 1005 hr. at 1300', 1015 hr, heard Alouatta. Got a Dendrobates pumilio at 1280' at 1050 hr. Reached an Atta nest overlooking the Rio Peje at 1400'. Went a couple hundred meters more, then turned around. Saw an adult Amazilia in a light gap jungle - appeared to be foraging and at least 1 m above ground, tho the jungle is continuous w/ the trail. Took a wrong turn and went down a trail to the Rio Peje - extremely steep, had some trouble getting up the slippery slope. Found right trail, by then very hot & sweaty. At 1214 hours, 1320', got a Sphenomorphus cheniei active in litter beside the trail. At 1345 missed a small (x3 cm) green-backed frog, maybe Rana palmipes. Saw another Sphenomorphus cheniei in sun beside the trail at 1200', 1355 hr. G. Stiles brought me a Dendrophidion he found in the morning on the trail between the largest stream that crosses the trail to the Peje and the Rio, dead when he gave it to me. M. Grayson brought in what seems to be an Anolis capito - has lots of green on sides of body. Andro

1983

19 January
(continued)

Chacón and Cathy Pingle went east to the Rio Guasimo, across it, and up a little stream into an area of many bromeliads and much moss. They got a Bufo and an Oxybelis near the house at the Rio, more or less due east of here. They got what seems to be Anolis lionotus and 5 Ateopus (lime green, like the one yesterday) along the smaller stream. The little Oxybelis was crawling among rocks and roots near the Rio. Antonio and Hartshorn made a circuit, out the Peje Ridge trail south several kilometers, then east to the Rio Guasimo at the house and back via the carriel to camp. They got a Rhadinaea decorata and a Bothrops nasutus on the trail in the morning, a Drymobius melanotropis ≈ 1.5 km west of the Rio Guasimo on the way to it, and a Rhadinaea decorata and a Leptophis depressirostris on the carriel back to camp. The Drymobius was dead, and contained a large gravid ♀ frog, cf. Eleutherodactylus bisporatus. The Leptophis gapes and stiches. The second Rhadinaea broke part of its tail off in capture. The Bothrops sat guiltily alternating w/ jinks/side-winding for several centimeters. Only a brief shower at sundown, all day.

20 January

Left camp at 0845 hr w/ Cathy Pingle, Eladio Lopez, and Isidro Chacón, heading southeast on the "road" out of camp. After the little sandbar that's 20 minutes or so out, the trail is miserable. Very loose mud, at

1983

20 January
(continued)

Times like hands reach up and pull on my boots. Hot and sweaty by the time we reached the Rio Guasimo. From the hill just NW of the river, we could see a couple of volcanoes in the distance. Sunny w/ scattered clouds. Took a nice dip in the river, but Isidro slipped on a boulder and bruised his left shoulder (he's very sure footed and later said this didn't give him a good feeling about the day). This was ≈ 1000 hrs. crossed river and headed SE on a trail Caty & Isidro had been on earlier. Got an Anolis limifrons at 570 m. Reached Rio Guasimito, $\approx 2020'$ or 640-660 m, at ≈ 1330 . Did some looking about then tried to build a fire. Wood very damp and wouldn't stay lit. Isidro, Eladio, and I were hunched around the circle of cobbles; Isidro said something about a vial of alcohol; the next thing I saw was him jump to his feet with his head totally in flames - could see only his black hair, like a halo around the fire. He froze for an instant, turned, staggered, then stumbled in to the river. I jumped up and ran to catch him, fearing he either wasn't getting it out or would fall and be further hurt on the boulders. By the time I grabbed him, flames were out and the air smelled of burned hair and skin. I hugged him and said, "Puede a ver?" He looked at me, then upstream, and said, "Si, puede a ver." [Turned out he thought there was no fire, just smoking wood, but Eladio

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20 January had put a little lit candle under the teepee of kindling. When Isidro poured out of the vial, it burst into flame and when he jerked back the flaming liquid splashed onto the ~~left~~^{right} side of his face. As soon as this was used up the fire went out.] We put Bacitracin ointment on his face and toothpaste on his lips, and he went for a walk in the forest to smoke and calm down. When he came back, Cathy & Eladio went 30 minutes away, to a place Eladio knew, called Finca Plastico. Came back right at dark w/ good dry wood, kerosene, ("Canfin"), and a little mirror so Isidro could see his face. Before they returned I clammered out on the moss covered boulders and found a large beautiful Ateopus. Then Isidro and I sat and talked of life, love, death, luck, the importance of eyes to a naturalist, and god (for him, el bosque y todas sus cosas). We had a good meal, but noticed ants from the nearby Atta nest have raided our bag of granola. At dusk I hear some toad that sounds like Bufo valliceps, another chorus of high pitched squeaks the sources of which I can't locate.

21 January Slept about 10 hrs poorly - I was on a slope. No rain or only a light mist, blue sky at dawn. The Atta have now eaten a hole in Cathy's backpack, but not thru the foil packed freeze dried food. We have eggs w/ cheese & ham and hashbrowns, the latter not especially liked

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21 January
(continued)

by our two Ticos. At 0915 hr I sit on a boulder in the stream. The stream has a lot of white water and many boulders, the higher ones w/ moss on them. The banks are bounded by small trees, many epiphytes, and hanging mosses. A morpho comes by. a little brown bird w/ a white rump patch hops from boulder to boulder and periodically onto the bank; it has a curious way of hopping and flashing the white flag (just had a talk w/ Cathy about her brother's suicide - great guy but lacked confidence, shot himself w/out leaving a note. Doing her slide show on the Zona and planning this expedition was a diversion for her.) I turn and see a lime green frog on the boulder next to me and just off shore. This Atelopus calls every few seconds, a brief chirp of ≈ 1 second, sometimes on elevated legs. Makes two shots (success?) at small insects, and moves a total of ≥ 0.5 m in ≈ 10 minutes. Never hopped except when I finally moved to collect it. All other moves were walking on elevated legs. I could hear other Atelopus calling downstream. At 0946 hr I see a good size Anolis (lionotus?), 5V ≈ 70 mm, on a rock in the shade in the stream. When I approached w/in ≈ 2 m it jumped in the water and swam upstream ≈ 0.5 m and climbed onto a boulder. I moved 1 m closer, it jumped in again and swam out of sight. Walking downstream, I saw a huge log, reddish, lying right at streamside in full sun.

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21 January
(continued)

It is steaming in somewhat of a plume, and at first glance I am taken aback that it is on fire! Saw three other little lime green Atelopus, all on boulders in the stream. None move until I am very close, then each jumped in water and swam rapidly to another rock & climbed out. Cathy got two and Sidro got ≈ 6 little lime green ones and one of the larger variegated Atelopus - either these are separate species or respectively males and females. Because of the collecting limit I released all the little ones except the σ^7 I caught calling. When placed in bag w/ the bigger Atelopus it clasped me for remainder of trip. at 1147 hr, as we packed, an Ameiva w/ bright middled stripe cruised through our sunlit clearing. We walked south on a little trail. at 1224 hr, 2140' el., we saw white faced monkeys. at 1245 hr, 2240' el., we reached a "carril" (broad cut track) that is the E boundary of the Zona Protectora. Eladio cuts a 1.5 m section of a 4" thick ^[tetra-cera] "agra" vine w/ two swipes of his machete, and we drink the slightly sweet and abundant liquid that flows from it. Nearby Eladio points out a place where 2' or so of leaves are scraped up and aside and says this is where a tiger, Felis onca, rested. at $\approx 1300'$ we reached the bottom of the Rio Guacimo gorge at an el. of 2220'. Here the river bottom is large sheets of rock, not boulders; lots of moss. We

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21 January (continued) continued \approx westward. See Tapirus ("darta") tracks at 700m el. at 1335hr, 2380' el., we paused on a ridge in the middle of a large finca. As we walked on across the finca (hot, sunny, high grass, scattered large trees left for later lurking d'mtld), Isidro caught a good sized Eleutherodactylus in the grass at 710m el., 1351hr. As we neared forest edge, saw Felis onca tracks on trail, walked 2420' el. at 1443hr. Walked in forest W and then N for \approx 1 hour, saw crested guans. Finally reached a little house \approx 1545 on the NW corner of cleared land, just N of where trail comes out of forest. The house has a metal roof, wood floor, faces a spectacular gorge on the west. There are a few clothes hung from plastic bags on beams, two flashlights on one wall, a fairly fresh tooth brush, and a shot bottle of something for cattle. There's a rolled up foam sleeping pad. No door on the west, what amounts to a porch. A few feet W of the house is a covered cooking area - fireplace made out of a stump, some simple shelves, and a sort of washboard. There's a thick black hose from far away that's wrapped through nearly barbed wire and provides continuous good water. It can be easily moved to the washboard, where there's a crude, homemade wire clamp to hold it. On the shelves are a few glasses, dishes, pans, spoons, some cooking grease, and some salt. Also a

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21 January a coffee sock. We all bathed w/ the hose, dried off in the late (continued) afternoon sun, and even used some talc Eladio has. [He seems to have everything and always looks fresh!] Then we have some cheese, coffee, hot chocolate, and chat about the view over the Rio Sardinalista [on maps; Hartshorn learned that local people call it the Rio Cabalonga]. At 1715hr, Isidro is cleaning his burns and the others are cooking. Light is fading. A few big trees just beyond the cocina are in sharp focus, almost silhouettes. A fine misty fog has descended on the gorge and the far canyon walls, making trees on the far ridge seem like apparitions. We eat soup and chicken w/ noodles, hot and tasty. A tinamou calls in the distance. At 1725hr I go for a drink and see an adult ♂ Andis liordus on a corner fencepost and by using one hand as decoy, catch it w/ the other. At 1800hr there is a curtain of pink fog, such that we can see only the horizon of trees on the far ridge, in sharp focus now, and those just past the cocina. Lots more bugs now, and we hear some sort of caprimulgids and what sounds like a quail. If she were here it would be perfect, and as it isn't far from that! At 1806hr fog shrouds the nearby trees and the far ridge has "disappeared." Night is falling, and it's been a fine day: Isidro seems to be OK [right eye was cloudy for a few hours, but has cleaned up.]

1983

21 January a good walk but not too tired, watched Atelopus, etc (continued) well, now this incredible dusk! at about 2000 hr I went out alone in a light rain after listening to two hylids squawking at each other. Got one of them immediately, a Smilisca phaeota on a bush ≈ 1 m above ground in high grass. Then an Anolis ? leimifrons and a big Anolis biporcatus, the latter ≈ 1.5 m up, the former ≈ 0.8 m above ground, both on bushes in grass. [the A. biporcatus struggled a lot, possibly the cause of the 2 or 3 skin tears I noticed later].

22 January Awoke ≈ 0530 hr after somewhat bumpy night - lots of biting insects and too hot in my sleeping bag. By 0600 could see the far ridge: now the trees are various colors (instead of a wall of very dark green), and I can see Volcan Poas clearly behind the far ridge. at 0730 a Semipalmatus Hawk landed in a nearby tree, in clear view while we had coffee. I went for a walk in the forest ^{≈ 200 m} south of camp, and at 0852 hr saw a juvenile Ameiva on the trail (bright yellow middorsal stripe). at 0920 hr I found fresh cat tracks (smaller than definite sign) in mud on trail ≈ 300 m S. of camp. About 1000 hr as we packed up, Isidro brought in an incredible red millipede ≈ 6 " long, and Kathy an Eleutherodactylus w/ ped thighs; it was

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22 January (continued) dead from overheating, so I popped it in the remaining vial of alcohol. Eladio scanned the gorge and had ^{probably both another black} five hawk eagles (sp. uncertain) in sight at once. We set out going N, first through forest then over a big finca. at 1120 hr, 1840' el., there are big Tapirus tracks on the trail. We re-entered good forest and at 1135 hr, 1900' el., I catch a very big Eleutherodactylus on the trail. Like the E. biporcatus I found during the day at La Selva last year, this one froze after one leap, was easily snatched, and struggled & because of slime was hard to hold. I started down into the Rio Sardinalito gorge and stopped for a picture w/ Eladio at 1147 hr. While we sat on the trail a Zenopsis albicollis landed on a limb just in front of us. We reached the bottom and crossed the Rio at 1200 hr, 1540' el. Going up the other side I caught a little Eleutherodactylus w/ a fiddle like pattern of warts at 1206 hr, 1620' el.; we reached the top at 1212 hr, 1780' el. Crossed a ravine and a ridge of finca, then down a steep slope to a little cabin beside a small fast moving stream; a small beagle-like dog out front barking and retreating to edge of woods whenever we drew near. Crossed stream and went up a long, hard slope past quite a few cows. Indio leading and bent on reaching the top before stopping.

1983

22 January
(continued)

Finally, at 1400 hr, 570m el., reached a ridge at edge of finca where westward and northwest there is a vast stretch of forest ⁺ steep canyons. Eladio scans w/ binoculars and decides we are S. of where the Rio Peje joins two other streams. After much talk we decide that going down into the Peje gorge is a bad idea (we've seen it farther north from above) and start back over the same steep, muddy pasture slopes. ¡Que puta! Suddenly Isidro yells "Harpia" and we run to him - says he saw a huge dark bird just overhead that must be a Harp Eagle! Looking up I see the bird drop into a tall tree ahead, and we plunge down the gorge and up slope to the tree. Spend a few minutes searching the tops of several tall trees and then see it - a bald head, sad looking rulture. Continue on and get a Bufo haematiticus at the base of a big tree above the creek as we return to the little house. Eladio wants to go in and make coffee, but now the dog is snarling w/ teeth bared, from under the porch. To enter would mean subduing the dog, which we don't do. We talk a little then ^(1445 hr) go fast to top of next ridge. Stop for can of tuna, granola, water at 1500 hr and decide to go N and look for a route to the Rio Guasimo or at least a camp site before dark. This is a problem, and Eladio sets a very fast pace

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22 January
(continued)

down out of the finca and into the forest. After about an hour's hard walk through dark forest we reach a newly cleared area, in the center of which is a little house w/ a tiny new garden plot right in front. Eladio sees several things that suggest this is a finca from which Antonio and Gary Hartshorn found a faint trail to the Rio Guacimo. We set out, all worried about having to camp in the forest w/out water. Eladio is moving really fast - we are practically running down a faint trail and it is getting very dark. For a while I worry about snakes, wasps (Peraponera), and falling w/ a full pack on - sure enough, Isidro gets it on one hand by one of the big black ants. 'Hue puta!' Those worries seem to be cancelled by the thought of losing the trail if I don't keep up w/ Eladio. Soon I am just jogging thru dark woods w/out thinking, surprisingly sure-footed. Cathy is a ways back, and finally Eladio and Isidro agree that Isidro will drop back w/ her. We will go on to find a place and then Eladio will return for them. Finally ≈ 1700 when it's almost dark in the forest, we break out into a pasture and can hear a river. Eladio yells "Gracias al Dios" twice, because we realize we're a couple hundred meters upstream from the old house we passed the first day! Eladio left and soon returned w/

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22 January
(continued)

the others. minutes later we were drinking and bathing in the Rio. ¡Pura Vida! Eladio is ecstatic and bubbling about our good luck. He dashes around, building a fire up in the house, fixing coffee and hot chocolate. Soon it's dark, and by candlelight we eat the last "dinners" of eggs, applesauce, and cheese. Cathy heads for the tents, pitched down by the river, and Isidoro starts to press plants. (Forgot: after bathing I walked/stumbled up a tiny cascade coming into the stream from the south, trying to catch some sort of frogs that have a squealing drowsy cry down and dash around here in fast moving streamers. Can't find them. My feet - the soles - are so tender I can barely walk on the river stones. ~~At~~ At least two ringed kingfishers are flying up and down the river and squawking when we were bathing). The floor of the house is splattered w/ scattered cow shit, most of it old and crumbly. A breeze goes thru the rooms. We sit by two candles and talk of happiness, women, fear. Then slept $\approx 1/4$ hours, pretty well.

23 January Next morning we're up at dawn and have a leisurely breakfast of tuna, cheese, granola, and coffee. While Isidoro packs plants and cleans his face I look around the back room of the house. On one wall is an outline drawing of a man in

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23 January
(continued)

in a shirt w/ smiling face and upraised arms. Below in black scratch is "Esta cama es de Jesús Arrozco, ciudadano con ella." Isidro says that local lore has it that this Jesús hung himself, but Eladio says he knows Jesús' father and that this is pura paja. On another wall in blue pastel chalk is a good drawing of a large leaved tree, a mastodon (?), ~~MAST~~ and a naked man w/ long hair and upraised spear aimed at the beast. On the front wall, outside, also in black scratch, it says "La Isla de Los Hombres Solos." However, there ~~was~~ evidently a child here once too, because there are a small girl's sandal (dirty white) and the left arm of a doll lying in the cow shit in front of the house. The boards outside have the same rough gray texture and curious juxtaposition of the other campesino houses I've been in: they don't meet in straight, regular ways, but the whole thing comes together very nicely in a way I find really beautiful. We finally all load up and set out for base camp x0830 hours, Eladio in the lead, then me, Isidro last. I feel gummy and clumsy and hot the first 20-30 minutes, and Isidro lagged the whole way back, for solitude I imagine. Weather good, trail better but still sloppy. We see very

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23 January
(continued)

fresh, very large Felis onca tracks between the little rancho and base camp, and Cathy catches me a pretty little Byso conifers on that stretch too, lime green w/ red warts. We come in to camp #0935, for breakfast. Stiles, Gomez, and Rodriguez had gone way up the Peje; Gary hurt a wrist badly, and they brought me a big Leptophis depressirostris. Hartshorn, Antonio, and the two plant collectors came in late morning having made it up to 900m, gotten lost, gone E. to the Rio Guacimote and Finca Plastico! They brought me an Stelopus found on a log in good forest at 900m; a Xenodon rhabdocephalus from between the Rios Guacimo and Guacimotos, 540m; and a baby Mastigodryas from the trail E. of camp and W. of the rancho, 340m. The Leptophis gaped and defecated when handled, and the Mastigodryas squirmed and bit fiercely. The Xenodon was thought by everyone to be a Bothrops, and did a great behavioral imitation: tight coil, fast short strike w/ open mouth, spread quadrates, finally spread a hood, and after repeated teasing it repeatedly tried to crawl away fast. Stiles and Gomez also brought me a dead juvenile Ameiva they stepped on, on a rock in the Rio Peje. George and Mike saw what must have been a

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23 January
(continued)

huge Epilotes day before yesterday, crossing the
carril that runs from the Rio Guacimo to
the road we came in on. They said it gaped
and flattened the neck vertically. The other two
groups also had beautiful but hard trips: Stiles
said the Peje is the prettiest river he's ever been on;
Gomez said some of the times were among the
most trying in his life. <sup>[He also saw a turtle in the Peje w/ large, hooked beak
and a bad smell - Kinosternon]</sup> Hartshorn and I
both thought of Matthiesen's Snow Leopard
while we were hiking yesterday. During afternoon
I dried my sleeping bag and tent, pickled keys,
washed me and clothes in my little pool in the
Cartavana. After dinner much talk, beer,
rum, field notes. Isidro brought me a nice big
♀ Anolis biporcatus w/ a fairly fresh mating scar,
found after dark between the cocina and
our tents. Occasional showers after dark. (Forgot
to mention that Hartshorn saw a Rhadinaea
decorata as they went out on the 21st but didn't
catch it; also a lime green Heteropus at the spot
he caught the other one).

24 January Everyone seems lazy, and we take group photos
≈ 10 AM. Hartshorn & Stiles leave for San Jose,
and I pack up all specimens to date, after luvul
Eladio caught a Leptophis depressirostris along the road
into camp. I walked up the rut east of camp to
cost a Felis onca track if any remain. Just as I

1983

24 January
(continued)

started up a slope after the first creek saw a big Chironius grandisquama on the trail. This was a few minutes after I'd barely glimpsed the tail of a slender brown and/or green snake go off the trail into grass, so I was surprised it didn't move as I dashed $\approx 2m$ and seized its posterior. The snake's tail was still in bushes to the right of the trail, head pointed up trail, as if it had crawled out and then turned. When I grabbed the snake it turned, inflated, drew back into an exaggerated S-coil and struck. Also munched, and managed to bite my hand once. Looks a little different than the two I tracked at La Selva, perhaps because of size or geographic variation. This one has regular coffee bands alternating w/ black, much more obvious ventrolaterally. Viewed from above, the snake is almost jet shiny black. Ventrally, esp. on the posterior $\approx \frac{1}{2}$ and on the tail, these light bands are almost rose colored. At 1400 I reach a good jaguar track, start casting it, then have to return for more paraffin. Finally do it the Koford way; took >30 minutes, $\approx \frac{1}{2}$ of a small can of Sterno (jellied alcohol), and quite a lot of paraffin. Saw nothing else on the trail, and the others didn't when they went up to the falls either. Much merriment during and after dinner. I couldn't sleep and eventually got

1983

24 January (continued) up and walked to the Quebrada Cantarana and back - no frogs. Then walked in grassy area E of our tents. ≈ 2245 h found a Leptodactylus pentadactylus in a 6" diameter hole in a 1m long, 1m diameter log. Then a Smilisca on top a nearby log.

25 January Everyone woke up ≈ 6 AM, anxious about packing and leaving. Had breakfast, then Erik the cook packed everything up, so for lunch we had only granola. One Tard Cruiser came in ≈ 1330 and took a load of gear out to the tractor and trailers at the Rio Peje, then returned for us and our packs ≈ 1500 . Road better than when we came in, but still very rough. Reached La Virgen ≈ 1730 , had a cold beer, called La Selva, and waited 'til ≈ 1930 when Victor picked me up. Finally carried my ~~new~~ pack across the new bridge a little after 2000h, walked up to the new lab and ran into John Endler!

26 January Fineca La Selva, near Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica

Heard after breakfast that Edwin Paniagua saw a Felis concolor early this AM on the little bridge over the west boundary trail, just off the Camino Experimental. Went out to try to catch tracks, and saw a ♀ agouti w/ young and many Anceira. Spent the day getting cleaned up, settled in etc.

1983

27 January ~0930 hr I was in my room and heard Rob Colwell call "coral snake." He found a small micromys nigromacrus (stomach empty, photos) crawling across the sidewalk in front of the bathrooms. It thrashed, body flattened, tail displayed, and bit fiercely and repeatedly when pinned. After lunch walked to ~1800m on the Sabalo Esquina trail to check the stump for Bothrops asper, but saw only many Ameiva.

28 January ~0900 Orlando brought me an Amastidium found crawling on the other side of the bridge on the way to the AC labs. Rained from midmorning 'til ~1530 hr. This AM Orlando also showed me an Agalychnis callidryas sleeping on a leaf ~2.5 m above the sidewalk, just behind the showers. I photographed it, then gently took down the leaf and taped it to my shelf w/out it waking up.

29 January Up for breakfast, then napped and read. From 1315-1500 hr walked W. to back side of old cacao grove, back w/ a detour in Plot I, over to Arboretum and back. At 1401 got a Mastigodryas melanoleucus crawling on trail at ~50C 900. It squirmed and bit repeatedly when seized. Saw a Nasua ~50m 250 at 1446 hr. Zeda brought me a small Rhiodontomys which she found in the successional plots this morning.

1983

29 January (continued) at 1520 a woman bird watcher called me to see a big shiny black snake, but I couldn't find it - bottom of stairs below showers.

30 January Worked in lab and library all day, except for a two hour trip into Puerto Viejo w/ Mo Donnelly for ice cream.

31 January Rob Colwell brought me an Amastidium he found #0845 at SOC 500, sitting on the trail. When they pinned it the snake thrashed its tail, then coiled the tail around the net pole and could be lifted off the ground. When I examined it the snake crawled rapidly and voided a smelly clear liquid.

1 February Examined stomachs of the snakes Craig Guyer and Maureen Donnelly have preserved for J. M. Savages CRE collection:

CRE 6698 - Micurus nigrocinctus (this is the one that bit Craig)

SV \approx 550, tail 109 σ somewhat shriveled (killed in boiling H_2O)

SC 1 Lepidophyma flavimaculatum HF
HW 14 SV \approx 90 mm

Went out at 2200 hr w/ Craig Guyer, Mo Donnelly, and Kay Etheridge to a swamp on the Camino Experimental. Many transforming Hyla glaucochroa; a large, solid brown Rana palmipes sitting in a small pool; and a very large, aggressive red spider.

1983

2 February at lunch Ned Fletcher told me of seeing a Lachesis muta and scat of Felis onca, so after lunch several of us went after them. Walked out the Camino Circular Circano to the Camino Central, all the way across the Sendero El Swampo, and N. on Holdridge Trail to its origin, w/out finding either. Did see clear F. onca tracks in mud near water in the swamp. Found the scat at Holdridge 500, and the Lachesis at Sendero El Swampo 750, in both cases right at the signs. The scat was in midtrail, and had many bugs; no associated tracks. The snake was 4-5 m south of the trail, against a log parallel to the trail. Two logs intersected this one from upslope from the trail, so that the snake was in a "box canyon" of logs. This is in good, fairly open forest, among palms \approx 1 m high. Snake was opaque, and in a slightly longitudinal resting coil, w/ head on one end. After several minutes of photos, it moved its head slightly. When I dribbled some red paint on its neck from a jar tied to a pole, it assumed a more erect, striking pose and moved its head slightly in my direction. Impression was that it was alert and prepared to be defensive, but not aggressive. We left it

1983

2 February
(continued)

≈ 1515 hr, still in an alert posture. at about 925m on the Camino Circular Tejono found another Felis onca scat, this one including droppings plus wads of hair and scattered teeth, all evidently of Tayassu. Went for swim at the waterfall on the way back in, first time this trip. Forgot to mention that when the Lachesis assumed what seemed to be a threatening posture, it flattened (inflated?) the anterior 30-40 cm laterally. A similar lateral flattening is evident in a photo on the dining room bulletin board of this species.

3 February

Left ≈ 0800 hr w/ Ieda Muñoz, station manager. Went to 750m on Sendero El Swamp by way of the FarJoop Trail. Found Lachesis muta from yesterday, ≈ 2m from original site, coiled under the more W. of two logs perpendicular to trail. In an oblong coil w/ head resting on one apex - took one picture and didn't disturb it. Saw no new Felis onca tracks in swamp. Went northward on Holdridge Trail then over to Sabalo Esquina Trail and out to ≈ 1750m on it to the Jerciopelo stump. Saw no snakes, but several juvenile Eleutherodactylus biporcatus, one E. minus, and one E. fitzingeri, all active on trails adjacent litter. This was a warm, sunny morning. After lunch, I went w/ Robin Chazlon (Cornell U.)

1983

3 February
(continued)

out the Camino Experimental to see a hummingbird, Florisuga mellivora (White-necked Jacobin), on a nest on a short palm beside the trail. Took photos. This was same species, the ♂ of which we saw this morning just below the waterfall on the Quebrada El Salto. Robin and Rob Colwell went back to the station, and I walked til ≈ 1500 . Went out to ≈ 1000 m on the West Boundary Trail, then returned and completed the loop of the Camino Experimental, then out to the arboretum and back. Saw nothing but Ameiva.

4 February

Left by myself at 0730 hr, walked by way of Far Loop Trail to Lachesis site at 750 m on the Sendero El Swampo. Snake not in sight and I looked all over the slope w/out finding it - a little creepy! Next walked to 700 m on the Camino Central, found the bridge out, and returned via Sendero El Swampo and Holdridge Trail. No fresh jaguar tracks in swamp. Near the bridge just before leaving swamp, was heckled by 4-6 White faced monkeys. Saw a squirrel too. Went to Puerto Viejo after lunch for kerosene. Forest has seemed extremely dry, except for swamp, but we had some brief showers today.

5 February

Left w/ Teda Muñoz at ≈ 0900 . Went by way of Camino circular, Tejano to the Camino Central and then to 750 m on the Sendero El Swampo. Looked all over slope and among logs, but couldn't find the Lachesis.

1983

5 February
(continued)

Caught a gravid ♀ Norops capito on one of the logs, took photos of her. No new Felis onca tracks on the Swampy Trail. Went out to ≈ 1000 m on Holdridge Trail, then back to station just before noon.

Bird group here saw no snakes today either. at 2140 hr a bird watcher came and told me he watched a black and orange "coral snake" cross the sidewalk, supposedly w/a fairly blunt tail like Micruurus myrtilatus.

6 February

Saw Rob Colwell off. Left by myself ≈ 0900 for the Lachesis sight by way of the Camino Circular lejano. No snake, no Felis onca tracks in Swampy [NB: the old tracks were going east on trail.] Took a short cut between the Successional Plot to the Sabalo Esquina Trail, then out to 2000 m. Check the Bothrops stump - nothing. Saw two large Rhinoclemmys basking on a large log in sun, over the creek. Too wary for pictures. Returned to station ≈ 1115 hr. One of the binders had seen a little Leptophis, "large green head w/tan body; one a black snake ≈ 0.5 m long w/ longitudinal yellow stripes. At lunch Fernando told me of finding several scats on a trail just inside the new property, so from 1300 - 1430 we walked out the Camino Experimental across the bridge at LOC 50 and ≈ 200 -300 m down the trail onto the Vargas Tract.

1983

6 February
(continued)

Just E. of the bridge at LOC 50 there was a smelly fresh scat $\approx 6"$ long and fairly amorphous beside the trail; contained hair (HWG 1341). Farther on found three sets of cat (Felis onca I think, but maybe F. concolor - this is very near where one was seen last month) scat. The first dry large and well formed (HWG 1342), second a little messier (HWG 1343), the last consisting of three adjacent piles (HWG 1344). Just past the last one was a small amorphous pile upon a log ≈ 0.4 m high, containing seeds (HWG 1345). All the cat scats had characteristic ball-and-socket features and were on the trail in plain sight. The one on the log looked like procyonid or didelphid. Found several tracks in mud between the ~~first~~ second and third set of cat scats. At least ^{two} were of large cat, but couldn't be sure if onca or concolor. At least 4 others had clear claw marks and were much smaller - Eira barbara? Fernando (works for the clerks) also showed me a bend on the Camino Experimental where he saw a Lachesis - he heard it move and saw it in an aroused posture.

7 February

Left at 1300 for Hartshorn Trail. at 1345 hr, ≈ 200 m on SOR, missed a pretty dark snake w/ gold stripes, $\leq 2'$ long. It was dashing off the trail

1983

7 February
(continued)

When I first saw it, and disappeared in ground cover before I could catch it. Rhadinaea guentheri? Went to ≈ 300 m on Hartshorn Trail (via Camino Circular Tejano) to where Doug Jerez (U. Wisconsin) had flagged some scat - very black and granular and not recognizable to me, so not saved. Next checked Lachesis sight and walked through swamp, then back by Holdridge Trail. Rodolfo Peralta brought me a beautiful green Bothrops schlegelii he found in Plot III. The snake was in a tangle of vines and a palm, Cryosophtila albida, about 1.7 m above the ground. He was cutting through the forest, and when he chopped the vine the snake fell to the ground. Luis Fernando Corrales saw a large Chironius near the bridge at \approx LOC 50, but no new cat scats on the Vargas Property trail. Victor brought a young Azouti paca that Sharon Herman (U. Wisconsin) is caring for. The animal doesn't bite, but has an astoundingly loud and ferocious sounding growl! Later in the evening Sharon was walking across the bridge over the Sura on her way to the AC lab, and saw a Felis yagouaudi stalking a Proechimys at the end of the bridge.

1983

8 February Spent much of the day sleeping and reading. Late morning went to 260m on the East River Trail and collected a pile of hair, skin w/ scales, and bones that appears to be the remains of a largely eaten armadillo. Then to the Arboretum where I photographed the remains (feathers only) of a Trogon clathratus on the end of a large log. Doug Jerey saw a falcon, Microastur sp. fly up from the log early this morning, and we surmise it was the predator. After lunch went to Puerto Viejo for ice cream, and while in front of the Bar Monte Verde was a huge (≥ 50 cm TL, very stout) Leptodeira annulata dead at the roadside. It was rotten w/ a very smashed head, apparently killed by a rock. Ground color had a distinct reddish-brown cast.

9 February Spent the morning bird watching, reading, and writing from the balcony outside my room. After lunch went to the Arboretum to photograph the Bothrops schlegelii and a pair of Eleutherodactylus salamarcae that Doug Jerey caught on the central trail a few days ago. Large yolked eggs are visible through the ♀'s body wall, and the pair were in inguinal amplexus when found. On the way Doug caught a ♀ Anolis capito near the base of the steps

1983

9 February
(continued)

on the shortcut trail between Sendero Sura to the arboretum ^(#1310 hr) and the AC lab. Says he's seen this lizard there before. When she opened her mouth to bite we could see a large green and yellow caterpillar w/ irritating (?) hairs, that Sharon Hersman identifies as the prey weighs 1.01 g; the lizard 9.35g and is to be released after toe clipping (stomach item saved as HWG 1347). Clipped outside right front toe. SV 81, tail 122 mm, HW 12 mm. Walking back, just as we crossed the Sura bridge, almost to the washroom, a large Corytophanes cristatus crossed from N. to S. among us and Doug grabbed it. It inflated and gaped.

SV 117, tail 235 mm, 46 g.

10 February

Left at 0745 hr walked out Camino Experimental and onto Vargas Tract by way of LOC and then the E-W trail.

Saw Sphenomorphus and Ameloria, plus a group of 6+ Cebus just S. of the stairs near the end of CES. Walked until I reached a "no hunting" sign on a N-S trucha, then turned N and stopped at the Rio Sarapiquí. On the way back got a large scat ^{HWG 1348} (Felis onca?) ~10 m beyond where I got the farthest out scats last week. This one was at least several days old. Returned to station for a drink, then took the N. capito out of the Sura Trail and released it. Walked to far end

1983

10 February
(continued)

of the Arboretum, then back to station. Left \approx 1300 hr w/ Brian, a British M.D. & nature photographer. At 1320 hr, \approx 290 m on the East River Road, saw a greenish snake going off the trail into forest and managed to grab a \approx 1 m Pseustes poecilonotus. w/ considerable squeezing and poking it formed an S-coil, gaped, and inflated anterior part of body, and then struck. Would not sustain the threat display more than 1-2 seconds after each easing, but instead tried to crawl away whenever possible. Went to \approx 300 m on Hartshorn Trail via CCL - released Bothrops schlegelii (SV 495 mm, tail 93 mm, 36 g) on a vine and photographed it. Walked across the Sendero El Suampo, over to the Sabalo Esquina Trail, and out it to the terciopelo stump at 1750 m - no Bothrops asper. Cloudy and saw no Rhinoclemmys on the logs over the creek. At ~~15~~ 1532 hr, SOR 640 m, saw a Dendrophidion vinito go off the trail fast and into a ditch and grabbed it. Beautiful snake! Coppery head, yellow belly. Inflated, S-coil, then bite and hold on, chewing and inbedding posterior teeth.

11 February

Doug Jerez brought me a Rhadinaea decorata,

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11 February (continued) found about 0930h at CCC 650m. Fernando Corrales saw a deer on the Vargas Tract that lacked horns, lacked spots, and had a white tail - he called it a venado (white tail deer) and the description fits Odocoileus. Jaime told me to watch for Canis familiaris in the Felis onca scats from the new property, because someone in that area lost a dog recently. Went around the Camino Experimental w/ Fernando to get a Felis onca scat Orlando showed him, at CEN 292m (we came from CES). Orlando spotted it \approx 2 weeks ago as a fresh, obvious scat; now it is just packed down in the trail as hair and a couple of claws - obviously of a sloth. At 1100h, 245m on CEN, we caught a strange Norops, cf. lenisimus, \approx 1.8m up on a small tree. After lunch, went into town by truck w/ Doug Jerey for ice cream, beer, and mail. Walked back. Saw an osprey at the Rio Sarapiquí and two Amazon Kingfishers. About $\frac{1}{2}$ way down the road between the highway and the La Selva turnoff, saw a Bat Falcon land in a tree. Downhill from the La Selva turnoff, we watched a Crane Hawk for \approx 15 minutes. It landed in three different trees and seemed to search for food in each one, hopping and or flying from place to place w/in

1983

11 February
(continued)

a tree. In one tree, which had ocopendolas, it seemed to be using its feet to investigate something; this was accompanied by wing flapping, so it might have just been using its feet to gain purchase. In the second tree we saw it investigate several bromeliads by peering into them w/ its small head. The third tree was a tall thick snag w/ several (nest?) holes. The Crane Hawk held the trunk w/ its talons and stuck its head into each hole several times, checked out a bromeliad on the same trunk, then flew ≈ 100 m away and landed in a tree where we could no longer observe it. Returned across bridge at ≈ 1545 hr. When we went N. at ≈ 1230 hr, there was a ≥ 1.5 m Caecilian on driftwood in the Rio, and it was still there when we returned.

12 February

Left ≈ 0715 hr w/ student from Texas A & M (Tulla?) and made a loop: CCL to SVA, checked for Tachesis (not there) and Felis onca tracks (none), returned by Holdridge and East River Road. Saw Sphenomorphus, Eleutherodactylus, and Rana warszewitschi active in litter, and a Violaceus Trogon on a limb. As returned David Clark directed me to a small Boa constrictor in the eaves, just under tin roof, of the shop

1983

12 February (continued) building near the bridge. It crawled, assumed S-coil, and struck once. Went out on bridge but couldn't see Caiman on the drift pile where it was yesterday. Rained at least 2 hours beginning ≈ 1400 hr, and off and on in the evening. At ≈ 2215 hr walked to CES 400 w/ Craig Guyer, Doug Jerey, and Brian from Britain; light rain part of the time. Saw Eleutherodactylus talamancae and E. diastema calling on leaves ≤ 1 m above forest floor; an E. biporcatus adult (SV ≈ 75 mm, photos) and several juveniles on the forest floor; and heard a Crested Owl several times.

13 February Photographed Dendrobates pumilio w/ tad on back, and Squirrel Cuckoos from balcony. Doug Jerey brought in a Norops humilis that weighed 0.95 g and was found holding a big Tabanid fly (?) weighing 0.14 g. Anole, \rightarrow measured 35+54 mm, HW 6 mm. Orlando brought me a baby Leptodeira septentrionalis that fell out of a shrub or low tree in the Arboretum: it has a bright white blotch on the head. At 2200 Maureen Donnelly saw a Felis onca on the sidewalk just east of the Sura bridge.

20 February Haven't written field notes for a while. On 14 February I found a small adult Leptodeira septentrionalis stretched out on a large fern,

1983

20 February
(continued)

along the laboratory sidewalk, just west of the Sura Bridge; a light rain was falling. It squirmed and splashed me w/ something foul smelling out of the cloaca. On 15 February Vicky showed me a fresh Felis onca scat at 902m on the CCL - it was apparently not there when she first walked the trail at dawn, but was there later in the morning. I went to the Clarks' house for wine, and while there a $\approx 3.5'$ Bothrops asper was twice seen crossing the sidewalk steps near the Old AC Lab. About ≈ 2300 I developed an awful migraine headache that kept me up most of the night and lasted 'til late the afternoon of the 16th. About 1950hr that night David Thompson showed me an adult Oxyrhops petola near the Old AC Lab - it squirmed and crawled fast, but never bit. On 17 Feb I walked CCL, CC, Sendero El Suazo and back on Holdridge. Found a Felis onca scat at 325m on Holdridge Trail at 1020hr; damp, solid, and seemingly consisting solely of sloth hair - has "ball & socket" shape. at 1042hr found a gravid ♀ Rhadinaea decorata crawling across the SOR at 145m. It squirmed and cloacal discharged. Walked to Arboretum and back, and at the jet

1983

20 February
(continued)

of Sura Trail w/ the AC Tab Shortcut trail saw a Cebus and Ateles swinging around overhead and near each other. They were knocking leaves and branches down, and precisely below them I found three medium size reptile eggs. Went into town after lunch on the 18th and walked back hoping to see hawks, but didn't. On the 19th, ≈ 0800 , spotted an Oxybala aleneus coiled loosely $\approx 1.8m$ above ground on a tall plant at W. end of the old Annex - it squirmed, discharged, inflated, gaped, and struck slowly when handled. Floated from Rafael's House to Station stairs in the Rio Puerto Viejo $\approx 1530 - 1600$ hr. Saw no herps, but a vulture rose from an area of woods where there was a foul smell. At ≈ 2300 John Gohe brought me a beautiful big Phiocercus surzorum found crawling across the sidewalk steps near the old AC Tab. It thrashed, wrapped tail around my hand, and discharged. Then this AM when I had it out for pictures it did more of all that plus struck several times.

1983

21-25 February

Spent this time in San Jose, Costa Rica. Went to zoo (photographed white lipped peccaries), Museo Nacional, and got export permit.

26 February

Parque Nacional Santa Rosa, Provincia Guaracoste, Costa Rica
Arrived here after dark. Some rain on the way, but ground dry and hard in the campground - slept under an almost full moon. Awakened at various times by armadillo visits, two park guard horses coming to eat out of nearby garbage can, and ($\approx 3:30$ AM) something that stung me hard (maybe a velvet "ant").

27 February

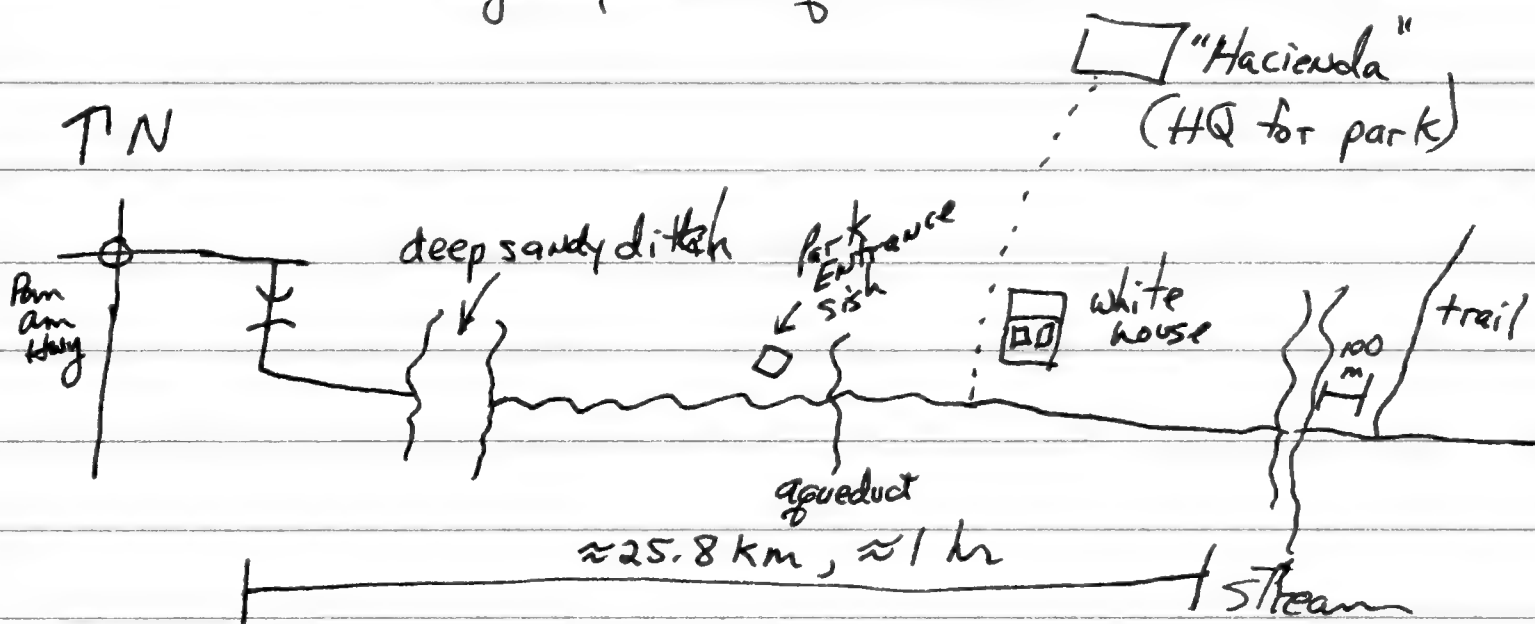
Before 0800hr watched 2 ♂♂, a ♀, and 2+ juveniles of Gonatodes albogularis moving over ≈ 2 m vertical stretch of trunk of a large tree ≈ 5 m away. Males int w/ heads up (yellow color very prominent) and sometimes wiggle the erected tail tip, which is lighter than the rest. Saw one approach another ♂, which fled ≥ 1 m fast when 1st was $\geq .3$ m away. These lizards moved in and out of cracks, and were not visible an hour or so later when the sun was hotter. Saw one ♂ Norops cupreus display near the geckos from a hole in the trunk ≈ 1.7 m off the ground, then a few minutes later chase a ♀ Gonatodes. Had coffee w/ Dan Jansen and Winnie Hallwachs at their house. He gave us directions to Rincon de la Vieja and a quick walk through a plot of "evergreen" forest where he most often sees Crotalus durissus - says this forest is

1983

27 February
(continued)

quiet but once maybe widespread in Guanacaste.
He regards that snake as very mild mannered until heavily teased or handled. Driving out we saw several big Ctenosaura on the road and on rock piles, and a DOR Conopsis sp. in grassy part just W. of the park entrance.

Parque Nacional Rincon de la Vieja, Prov. Guanacaste, Costa Rica
Getting here is tricky; and one begins at a bridge on the main road going east of Liberia.



We stopped to cool off at the aqueduct that crosses the road a short distance into the park. Saw a large, fast, brown snake disappear into a tangle at roadside, and a Buteo magnirostris fly to a large tree and perch. Crossed the stream w/ no trouble (rental Toyota sedan), parked off the road where a trail goes \approx N (I think), \approx 100 m past the stream. Packed up to a clearing a few hundred m into the forest where there is an abandoned outhouse,

1983

27 February
(continued)

then further up and into some nice forest on a very narrow trail. Trail reaches a dry aqueduct (?) ditch, then turns right and parallels it around the slope, climbing slightly and eventually reaching a stone dam and simple spillway gate. Found two Norops lionolus trapped in the spillway outlet, trying to swim upstream but unable to climb the sides when they paused. One I caught was a beautiful male, released upstream. By now ≈ 1700 hr, so we made camp upstream $\approx 150-200$ m, had dinner, and enjoyed the night. Raining off and on, but no frogs calling and no Ateopus seen by day.

28 February

Broke camp and explored some. At 0909 hr found an Erythronaspis bizonus crawling in sun dappled leaf litter a few meters into the forest from the stream. Snake ≈ 40 cm TL. Beth saw it, and I ~~grasped~~ grasped tail as it dived into leaves. Thrashed and cloacal discharged, but didn't bite. Heard howler monkeys. Walked uphill on a ridge right of the stream (looking upstream), then walked back to car. It had been broken into: food gone and battery dead. Passerby's helped push and we started it. Lunch in Liberia, back in San Jose ≈ 1730 hr. Dinner w/ Manuel Santana.

1983

1 March

Finca La Selva, Provincia Heredia, Costa Rica
Reached here ≈ 1430 hr, raining, since \approx
Canizal on the road in. Craig Guyer had found
a Gymnophis crossing the trail in the
rain.

2 March

Still raining, tho more or less stopped by
mid-afternoon and started again ≈ 2130 hr.
at 1300 hr went w/ Debbie Clark to 500 CES, where
she saw a Lachesis muta on 27 February. It
was an adult, coiled under a small (>1 m high)
palm in fairly open, primary forest. Snake
not there and I couldn't find it. Walked back,
then out CCH to CC and out the Swamp
trail to old Lachesis sight, but didn't see it.
Got back ≈ 1445 and heard Debbie saw a
big Lachesis ≈ 1 hr earlier at CES 300 m
— she heard it "raise up" beside the trail
after she walked by, after which it seemed
to have crawled off — she, Doug Jevay, and
I could not find it.

3 March

Today Craig Guyer found a very small Phoxiophis
(2.43 g,) in litter at a tree base
in one of his study plots. It disgorged a
gravid ♀ Eleutherodactylus transfordii, SV 23 mm,
head width 9 mm, 1.2 g. Thrashes and slight
tail curling when handled. Colors more or less
identical to the large adult week before last.

1983

4 March at 0645hr an OTS student showed me an adult Bothrops schlegelii crossing the sidewalk just NW of the bridge over the Sura. It is a green phase, and snapped its mouth widely open and shut when I picked it up. We've had heavy rains and wind the past two days, w/ small trees and large vines down in some parts of the forest, so I wonder if that brought this snake to the ground? From 0900 - 1200 I walked: out Holdridge to 750m, E to Sabalo - Esquina Trail and out it to ≈ 2100 m to get a piece of equipment the Carls left. Nothing in the Bothrops asper stump. Back to the station, then out CES to LOC and ≈ 500 m out the atajo into the new property. Only thing seen were Cebus howlers at the LOC x CES junction. at 1400hr it is sunny and partly cloudy.

5 March Worked in station all day.

6 March

Greene, H.

1983

17 June

Finca La Selva, Puerto Viejo de Sarapiquí, Provincia
Heredia, Costa Rica

Arrived here \approx 0800 hours. Left Berkeley 0600 on the 15th, spent that night in Miami and had 0600 flight to San Jose the next morning. Beautiful sunrise over the Caribbean, then spectacular view out window into smoking Volcan Poas. Spent day shopping in San Jose, then caught an OTS supply run at 0345 to here! Settled in. After lunch Milton Lieberman took me to \approx 450 m on Camino Experimental^{Sur}, then \approx 150 m to the right into the forest. Yesterday he found a large freshly killed armadillo w/ head and viscera eaten and flies loudly on it. We looked around the site he remembered, w/out finding it. Then I walked \approx 10 m away and found the carapace and tail of a large Dasypus which he said was it. Took photos.

18 June

after lunch went w/ George Schatz (U. Wisconsin) and Helen Young (staybook) to ~~1450~~ 1435 m on the Central Trail to collect a felid scat he found fresh yesterday. On the way, 1350 m and 1445 hr we found a pretty frog sitting in litter beside the trail that Craig Guyer later identified as Eleutherodactylus noblei. Also saw a E. biporcatus juvenile active in the litter.

19 June

Left by myself at 0750 to visit E. Paniagua's

Greene, H.

1983

19 June
(continued)

firca just S. of La Selva. Went by way of Near Zoop, Southwest Zoop, and West Boundary trails. Saw guans or Cunucos. At 0925hr found a large ♂ Pseustes poecilonotus lying still in the sun across a cow path on the firca (trees all around on firca, and forest edge ≈ 50 m away. Met Manuel Santana at ≈ 1030 , had snack and coffee, then walked ≈ 20 minutes S. into forest to see where he has a 3m long Boa constrictor telemetered. Got chased by a bull twice, coming to and from the forest through the firca - it stopped each time when we climbed up on high steps. Left at 1345 hr and walked back alone by way of Sendero Jaguar and the Stajo on the new property, stopping for a swim in the Rio Sarapiquí. On a rock beside the Rio found scattered crustacean parts, including two apparent feces ≈ 1 cm in diameter full of nothing but such parts - I presume these to be of Lutra longicaudis. Returned to station ≈ 1530 hr, where D. Zearney (U. Wisconsin) told me he and Rafael Campos found an adult Phisocercus eating a frog [Eleutherodactylus mimus] at 0945hr, head first. Frog was alive when regurgitated and at noon but dead at 1540hr and quite smelly.

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1983

- 19 June (continued) by after dinner. [Tired tonight!] Caught a second adult Pseustes, ♀, as it crawled off the Sendero Jaguar in deep forest, not too far from the SW boundary of the original La Selva property. Both Pseustes were fierce, inflating and biting.
- 20 June at 0613 hr I grabbed a ≈ 1.5 m Celalia celalia as it crawled off the sidewalk behind the bath house. It thrashed and constricted my arm, but didn't bite. after lunch walked West River Road and back w/out seeing anything.
- 21 June Put transmitter in ≈ 99 cm Lachesis munita, a fairly tranquil snake.
- 22 June Released Lachesis ≈ 0930 hr and watched periodically throughout day and evening. Some light rain in late afternoon, and enormous racket of birds at dusk. ≈ 1845 hr watched and photographed a Caluromys derbianus in a Piper plant behind the bath house, hanging w/ tail and eating leaves. Beautiful orange and cream fur.
- 24 June Lachesis still in place this AM. Checked periodically throughout day, last time ≈ 2130 hrs. Some rain in early afternoon. One Hyla elaeochroa seen on leaf at night, and several Eleutherodactylus heard calling at night - 1st sign of frog activity, and it's been very dry here. [Forgot to write notes

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1983

24 June
(continued)

for 23 June - checked Lachesis periodically throughout day and evening. Caught an adult Sibon nebulata on steps below the station after dark. It expelled foul stuff from cloaca and throated. Late this afternoon Manuel Santana brought in the 3m Boa constrictor he's been tracking in forest near Edwin Paniagua's finca. She was in a huge tree root, and is opaque.

25 June

Checked little telemetered Lachesis at 0540 hr. at 0632 hr Edwin Paniagua led us to a 2 m + Lachesis munita ≈ 50 m from the Bath House, in the Ecological Reserve. It was coming on to the shortcut trail and bumped his boot (not stuck), then turned SE and crawled slowly back into the forest. When we approached it was stretched out immobile, and while ≈ 10 people stood around and took photos, the only movements were a flinch or two in the neck region when a flash went off. Returned ≈ 0715 and it was ≈ 20 m SW of that place, crawling slowly. Stopped when we approached. Then Pat Fogden and I watched it stretch behind a tree from ≈ 30 m away while Michael went for his camera. Suddenly it had disappeared, so we circled to the tree and past it, then each searched around nearby large buttressed trees. We were amazed it had moved off

Greene, H.
1983

25 June
(continued)

far enough we couldn't find it so fast. When Michael arrived he almost immediately saw it coiled in front of the tree where it had been crawling. We had walked w/in inches of it w/out seeing or arousing it! Next we took numerous photos, and only response of the snake was to turn its head slightly in our direction and tongue flick fast once or twice - No long slow flicks. Snake was the prettiest of the three adults I've seen thus far - apparently freshly shed. Very cryptic, either stretched out or coiled.

After lunch, Nancy Rozge, student from U. Wisconsin, brought in a Rana warszewitschii that she found at ≈ 600 on Camino Experimental Sur. It had swallowed all but the tail of a Norops humilis, which when regurgitated seems OK. Norops wt. 0.81 g, SV 29 mm, HW 5.5^{mm}, tail 33 mm. Rana wt. 12.73 g, SV 56 mm, HW 19.5 mm. She also saw an adult ♂ Felis concolor on the Atajo in the new property this morning.

25 June

Up ≈ 0530 h and out to check the little Lachesis on the Camino Experimental. As I returned up steps behind the Bath House Craig and Mo told me to slow down, the big Lachesis was crawling up to the sidewalk there. They heard it move it's anterior then saw it. We watched it of

Greene, H.

1983

25 June
(continued)

and on for over an hour. At one point I timed the head as moving ≈ 1 m in 20 seconds of slow retilinear crawl. This was always the predominant mode of locomotion, even when it stretched out completely on a fallen log, except when it ascended over low limbs and once a fallen 55 gal drum. Occasionally if we moved nearby it stopped and turned its head toward the movement. Twice I poked its tail firmly w/ a twig, and it produced a loud noise by vibrating the tail. Saw frequent volleys of tongue flicks, but never long, ~~the~~ slow ones. ≈ 0730 hrs, just as the Lachesis disappeared in vegetation N. of the boardwalks at forest edge behind the kitchen, Isidro Chacón called me to see a Tamandua foraging in litter and low limbs at the forest edge. Uniform reddish brown w/ a black saddle. Oblivious to me unless I moved or used camera flash. At one point it went ≈ 5 m up a small tree quickly, then descended to a 3 cm diameter vine and deftly moved horizontally several meters. Tail used frequently. Once it fell from several meters up, but caught a vine w/ one hind foot and the tail $\approx \frac{1}{2}$ down

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1983

25 June
(continued)

and then descended w/out problems. ≈ 0800 hr
Isidro returned to lead me to a Bradypus
griseus. The sloth was curled up under a
low shrub by the path to Rafael's house, where
it meets East River Rd. Big flies in its fur,
so I thought it dead - but touched it w/ my
boot and it wheeled around. Seems OK.

Little Lachesis was in same spot ≈ 1030 hr, but at
 ≈ 1300 had moved ≈ 10 m N and recoiled. An
obvious crater where it has sat for last few days.
Went to a new tree fall at ≈ 360 m on the Camino
Experimental Sur - took photos and saw several Cebus
monkeys. This morning when we watched the
big Lachesis crawling behind the Bath House
I noted two landmarks on the ground,
and later found the distance between them to
be 2.1 m.

26 June

Checked small Lachesis off and on all day. Went for
float in the Rio Puerto Viejo before lunch and the Rio
Sarapiquí after lunch. In late morning, Manuel
went up on the canopy platform and saw an adult
Pseustes up there (≈ 40 m above ground). At ≈ 1845 (after
dark) caught a ≈ 65 cm Micromys nigroinctus
crawling in leaf litter beside sidewalk behind Bath
House. It thrashed, tail displayed, and snapped
repeatedly when pinned. Rained off and on all
night. Frogs calling here and there, and a spotted

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1983

26 June
(continued)

an adult ♂ Smilisca baudini on a twig
≈ 2 m up. Michael Fozden found a Nothopsis
myosurus crossing a trail in the dark. When
handled, it alternates thrashing and becoming
rigid. One dorsal discharge of clear liquid,
of which I could detect no odor.

27 June

Watched Lachesis off and on throughout day and
evening. Rained most of day and into the night,
sometimes very hard, and there was a tremendous
wind storm ≈ 1700 hr. Later I noticed many limbs
and brachiads down in the forest. When I checked
the Lachesis at night its neck was in an S-coil
and head was up - "alert." Perhaps coincidentally,
as I reached the place on the CES trail to
turn into the forest, some rat-sized rodent
crossed the trail. Only other time I saw the
Lachesis seem alert was on a rainy night when
I also flushed a rodent on a log very near
it.

28 June

checked Lachesis throughout day. after lunch
walked around the Arboretum, and at 1404 hr
on the shortcut from the Susa Trail just
inside forest from the Lab Clearing I spied
a Xenodon sabdocephalus crawling rapidly
off the trail. I thought it was a Bothrops
asper and nearly lost it in a tree hole
before, on the third stab, I pinned it,

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28 June
(continued)

got a good look, and recognized it. Once pinned, it thrashed, struck forcefully w/ open mouth, and tried to nip at me w/ the large rear teeth when held.

2 July

For past several days have worked in lab and checked small Lachesis many times.

≈ 0800h this morning George Schatz (U. Wisconsin, Botany) and Dong Juey (U. Wisconsin, Zoology) saw a Lachesis at ≈ 600 and 550 m, respectively, on the C.C.C. trail. Snake lunged from trail-side at George, and was crawling up the trail when Dong encountered it (?) a few minutes later. When we arrived, the snake was in a tight round coil w/ head in center and down, ≈ 1 m off trail in leaves. Hard to see, tho exposed. When I touched it w/ a potato rake it jerkily flopped out of the coil and started into forest. I hooked it out onto trail and after ≈ 5 minutes of maneuvering, we got it into a ≈ 10 gal garbage can. Still wouldn't call it an aggressive snake.

3 July

Big event of today was putting a radio in the Lachesis after lunch. It measured ≈ 1.7 m total length, weighed 1.6 g, ♂. Took ≈ 5 minutes to do everything w/ me holding the head, Craig Guyer

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1983

3 July
(continued)

the body. McDonnelly marked and measured, and Manuel Santana inserted the transmitter.

4 July

Released the Lachesis after breakfast. It eventually crawled under a fallen Welfia leaf, against a huge fallen tree. This is ≈ 20 m off the trail at ≈ 620 m on CCC. Was inactive there all day. When we checked it after dark (≈ 2030 hr), it had head out over outer loop, facing the log, which is $\approx 3-4$ m away - good position to catch anything traveling along the log.

5 July

at ≈ 0630 Nancy Rozge (U. Wisconsin) saw a Lachesis crossing the boardwalk at ≈ 400 m on the CES trail. When we arrived ≈ 0645 , the snake was coiled around the knapsacks she left to mark the place. When I touched it w/ hook the snake turned w/ head drawn back and vibrated tail, but didn't otherwise seem threatening. No problems getting it into a plastic garbage can. Just before we got to it, caught a little ($\approx 3-4$ m) Spilotes resting on a tree buttress beside the trail. at 0803 hr, as Manuel and I went to see the Lachesis on CCC, I saw a Dendrophidion vinitor crawling fast in leaves where E. River Rd. meets CCC. Snake

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5 July
(continued)

inflated anterior immediately after I grabbed tail. Struck repeatedly and thrashed. Regurgitated 2 Eleutherodactylus bransfordii. One was fresh, 0.71g, SV 19mm, head width 7mm. Other swallowed tail first, somewhat digested (head and part of trunk remain), head width 10mm, wt. 0.74 so real wt. $\leq 2g$.

6 ~~th~~ July

Continuing to check all three Lachesis several times each day. Having some heavy rains w/ long thunder peals - up to 28 seconds or more. Tonight went out to 600m on the Near Zoop Trail w/ Donnelly and Guyer. I found an Agalychnis saltator $\approx 3m$ above ground on a Welfia palm, and we watched one or more dingos, Bassanyon gabbie high in the canopy. Looked up when we heard noises in leaves overhead and got a very localized shower from the animal(s) shaking standing water on us. Very Klos-like, but tail held straight out and fast, squirrel-like running and leaping from branch to branch.

7 July

Tonight went out Near Zoop Trail to check the σ^7 Lachesis w/ Donnelly and Guyer. at 2005 hr, 450m on the trail, Craig saw a cat go off the trail. We converged lights into the forest and saw a young Panthera.

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1983

7 July
(continued)

once about 10 m in. At first I could only see hindquarters and tail. Then it stepped into full view and paused, took two steps, then melted out of sight. The lack of sound, given how noisy the forest can be, was stunning. It is little wonder that Indians revere the big cats and believe in forest gods! This cat clearly had the right spotted pattern, a distinctly marked tail, and weighed I guess $\approx 50-60$ lbs.

13 July

Been checking the hachesis several times each day. This AM I got up at 0200 and checked the two on the research trail every hour or so until dawn. Heard a rooster at 0407, saw 2 small Eleutherodactylus biporcatus and a Sylvilagus brasiliensis at 0452. Sky was noticeably light at 0445 but forest dark; trail easy to see at 0507.

15 July

Continue to check the three hachesis several times each day. Adult ♂ on Near Joop Trail has been inside an old treefall for days, hard to observe. The juvenile ♀ was unexpectedly in under her fern today and has a big food bulge. at 0928 hr found a huge (> 1.5 m) Lampropeltis triangulum crawling slowly in litter just off the

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- 15 July
(continued) Research Trail at 450 m (CES). It struggled, munched, tried to bite. Occupied all afternoon w/ TV, radio, and newspaper people from San Jose.
- 17 July At 2200 discovered that ♂ Lachesis on Near Loop has left log, can't pick up signal. Saw a rat-size rodent w/ obvious cheek pouches (cf. Heteromys) active in litter beside trail.
- 18 July Saw 2 Sylvilagus brasiliensis on the CES (near 0) at 0455 hr. in light rain. At 1018 hr, \approx 400 m on CES, I missed an adult Dendrophidion vinitor. Snake crawled rapidly off trail as I approached, and I could see the blue interscalar skin faintly, as well as stripes on the tail. Froze at trailside, but dashed out of sight into leaves when I grabbed.
- 19 July Checked Lachesis off and on all day. At \approx 2230 hr saw a Philander opossum beside sidewalk near bathroom.
- 20 July Checked both Lachesis on CES in late morning. At 1127 hr, CES 160, caught and released hatchling Dendrophidion vinitor as it went off the trail; no palpable food. At 1128 hr, CES 150 m, missed a large Mastigodryas melanolomus as it dashed off the trail and into a hole under an old treefall.

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20 July
(continued)

Both snakes were active on sun-flecked forest litter. At ≈ 1345 hr went to 590 m on the Central Trail, and caught a big ♀ Lachesis muta that Edmundo Paniagua spotted this morning. It was coiled near a ridgetop in dense vegetation, ≈ 1 m off trail, w/ head down in coil and facing away from it. Wt. 3.9 kg, length 2.2 m, the largest venomous snake I've ever caught, and my 7th Lachesis. Like all the others, a slow~~ly~~ moving, tranquil snake. Hard storms off and on all afternoon and evening.

21 July

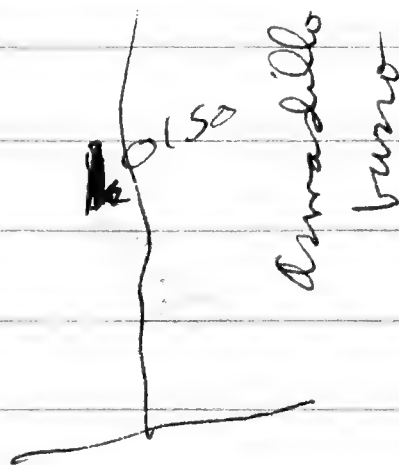
June 1350 - 1945h - big pretty Owl
1485 - cat scat

June 0925 - edge E. P.'s finca, large Pseustes in sur-
rounds trail, hot, -inflate & bite

1356 - big Pseustes on S. Jaguar

Griseofulvina
"Gutis products Corp"

Eleuth minus, 0945 h
13.15g, 50mm SV, HW 20.1
Pleurocous 45g



Greene, H.

1983

9 September

~2 mi N. California City, Kern Co., California

Clear, moonless night, lots of stars and Milky Way as we (John Carothers, Claudia Juke) drove in just after midnight. At 0006 hr we hit a neonate Crotalus scutulatus on Neuralia Rd. Slept at the junction of two dirt roads just W. of the Tortoise Reserve.

5 mi N. California City, Kern Co., California

Beautiful orange eastern sky before 0600, coyotes calling in the distance. From 0813 to ~0915 we walked a circuit I usually try. Saw no Gophers; numerous tracks of Cnemidophorus tigris and 2 juv.; 5 Uta stansburiana; 1 ♀ Phrynosoma platyrhinos (~0915 hr, not gravid); and 1 adult Crotalus scutulatus. The rattlesnake was in shade, in open, on W. side of a creosote bush at 0848 hr. It seemed sluggish - never rattled continuously, nor moved fast, but did quickly reverse S-coil. Found a small adult Gopherus crossing Neuralia Rd. ~1-2 mi N. of California City, in sun at 0946 hr. Had lunch at the Sidewinder Cafe in Newberry Springs, San Bernardino Co. Owner told me she'd seen a photo of a "diamond back" rattlesnake 5-6 feet long from the mountains south of town - but I'm very skeptical as Crotalus atrox shouldn't be there and C. mitchelli and C. scutulatus don't get that big. We reached the "Bunny Club" ~1700 hr.

Greene, H.
1983

9 September
(continued)

"Bunny Club," SE base of Granite Mtns, San Bernardino Co., California
as we drove and walked into here, saw hexas,
Sylvilagus, Neotoma, Amnospermophilus, and Spermophilus
variegatus - all active in late afternoon - and an
adult Sceloporus magister. Talked to Bob Norris
(Dept. Geology, U.C. S.B.) and his wife, part owners
of the cabin. Earlier this year they'd seen a nursing
♀ and 3 or 4 young Bassaniscus in the cabin.

We camped at Core Spring. Saw adults, juveniles
and tadpoles of Bufo punctatus - the transformed
ones hopping toward the stream after dusk.
Mosquitoes so bad - surprisingly - that we had
to cover our arms and heads w/ shirts to
sleep.

10 September

From before 10 til after 12 noon we walked around
creosote scrub and Kelso Dunes, on the SE slopes of
the dune faces. Got several Uma, mostly juveniles.
Adults very wary, running $\geq 15-20$ m straight,
nonstop, then often down a hole. Saw two small
Gambelia, one w/ rusty and one w/ red spots. John
saw a Gopherus in creosote scrub between the dirt road
and the S. dune face, and I found a fine big ♂
Urosaurus on a creosote bush. Went to Vulcan mine to
swim, on the W. slopes of the Providence Mountains via a
good dirt road just S. of Kelso. Then to Baker for groceries,
back to camp for supper, and out to Kelso Dunes to walk
around at night. Saw no Crotalus cerastes tracks there

Heene, H.

1983

10 September
(continued)

by day or night. Missed 1 unidentified snake, ^{caught} a live neonate Crotalus scutulatus, and saw a pair of Vulpes ^(2245 hr) macrotus - the foxes had big glowing yellow eyes that reminded us all of roadside reflectors they were so bright. Also found and released a nongravid adult ♀ Coleonyx on the road into our campsite.

11 September

Out to the dunes from $\approx 0900 - 1200$. Caught several Callisaurus along Kelso Rd., saw lots of Uta on small rocks and ≥ 5 Gambelia. Saw Cnemidophorus & another Gambelia in creosote scrub, and caught 5 Uma on the dunes. Claudia saw 1 Crotalus cerastes track. Went to Vulcan mine to swim, then to near camp ≈ 1500 hr for snack. Sceloporus occidentalis on boulders (outliers of Granite Mountains). We've seen lots of raptors so far - ≥ 1 Great Horned Owl, ≥ 1 Golden Eagle (resting on power pole over creosote scrub - this is w/in 2 miles of where we saw 2 last year over cattle pen), and several apparent Redtailed Hawks. Also ≥ 3 Geococcyx and some shrikes - lots of potential reptile predators. Back out to Kelso Dunes ≈ 1700 .

10 Sept

20 28 hr - AOR neonate C. scutellatus 63.5

Turn W. to Kelso Dunes 64.4

2245 - pair of bit foxes

2313 - Coleonyx on road in ad f range

11 Sept

2135 hr - C. cerastes AOR 401.2

2208 - DOR C. sc. $\approx 12-14''$, ants, not sowed

2223 - AOR subad C. cerastes 424.0

Kelso RR tracks 424.7

12 Sept

20700 - M. fl.

≈ 845 - M. fl. fresh on I 40

0945 - 1025 Pizgah - Uta, Cnemid., Call., Dips., Hadronus

H. Greene

1982-1984

Journal

1984

Calif: Mendocino Co.

Costa Rica

Oklahoma: Cimarron Co.

New Mexico: San Miguel, Cibola Cos.

Calif: Orange, San Bernadino Cos.

Greene, H.
1984

23 March

15 mi SE Boonville on Hwy 128, Mendocino Co., California
Left Berkeley at ≈ 1345 hr with Herpetology Class and two TAs, David Darda and Robert Seib. Beautiful, warm weather. Stopped beside road at this locality, ≈ 1600 hr to check large old logs beside stream on SW side of road. Found 3 Gerrhonotus multicarinatus and 3 Sceloporus occidentalis under loose bark; two of the Gerrhonotus were together and a pair (σ larger).

Hendy Woods State Park, Mendocino Co., California
Camped here. Ranger says he sees Lynx rufus every year, and sign of Ursus and Felis concolor occasionally.

24 March

1.7 mi N. Hwy 128 on Flynn Creek Rd., Mendocino Co., California
Stopped here $\approx 0900-10:30$. Found 1 large Diadophis under a railroad tie in the sun; no food, scuffy skin, tail displayed, released. Also 3 Taricha granulosa, several Batrachoseps, lots of Aneides flavipunctatus, and even more Ensatina. Found a dead Thamnophis elegans, TL ≈ 35 cm, on the road.

6.1 mi E. Flynn Creek Rd on Orr Springs Rd, Mendocino Co.
Stopped here from 11:00-13:45 hr. There is a dump beside the road, on a ridge, strewn with old lumber and car parts. There are small temporary pools, and we found many Hyla regilla: egg masses ready to hatch, tadpoles of two sizes, and an adult female. One student watched tadpoles going along small stems, end to end, feeding.

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1984

24 March
(continued)

Another saw lads eating a dead tad. Found a ♂ Chasmodon under a board. Under a single piece of tin there was a Thamnophis couchii, a Diadophis (escaped), and a ♀ Chasmodon. Under a board was a T. elegans, and there was a T. sirtalis under a car hood at the edge of the forest. All the snakes seemed very scruffy, and only the T. sirtalis had palpable food, an adult Ensatina that had been swallowed tail first. Under logs and boards, we found 1 Taricha rivularis, 1 Aneides ferreus, several Batrachoseps, lots of a. flavipunctatus, and even more Ensatina. Saw quite a few Sceloporus occidentalis and 1 Eumeces.

9.1 mi E. of Flynn Creek Rd. on Orr Springs Rd, Mendocino Co.

This is an old N. facing road cut w/ a stream coming down through it, at a hairpin turn in the road.

Greene, H.

1984

8 June
~~May~~

Finca La Selva, Puerto Viejo de Sarapiquí, Prov. Heredia, Costa Rica
Left Berkeley at 6 AM on the 6th, flew to Los Angeles where I met David Hardy (MD from Tucson), then to San Jose, Costa Rica via Mexico City and Guatemala. Spent yesterday in San Jose getting boots, etc., and visiting the Instituto Clodomiro Picado. Had an uneventful ride out and arrived here at ≈ 12 noon. Learned that the Lieberman's had found a Bothrops nasutus: SV 317 mm, tail 151?, 22.5 g, ♀. It had swallowed head-first a wood creeper, Glyphosynchus: crown-rump 63 mm, head-width 15.5 mm, max. dia. of body ≈ 27.0 mm, 16.5 g. For ≈ 1 hour Manuel Santara, Dave Hardy, and I walked out around the loop trail and back. Caught a juvenile Pseustes at 1602 hr in leaves beside trail at ≈ 1025 m (just before bridge over Saltito). It struck w/ widely opened mouth and resembled a Bothrops schlegelii so much in appearance (green w/ maroon bands) that I thought a viper for a while and pinned it. The Liebermans saw a subadult Felis concolor last night.

9 June
~~May~~

Today Rodolfo Peralta found at noon a Bothrops nasutus: 296 + 32 mm, 22.0 g. It contained a Heteromys, freshly swallowed head-first: SV 102 mm, tail 95 mm, max dia (head) 15 mm, 28.5 g. Dave Hardy and I walked out the CES

Greene, G.

1984

9 June
(continued)

and the Alajo to the Rio Sarapiquí. collected a pile of smelly Lutra scat, full of crayfish parts, at the rock where I've found other scats before. Just before we reached the station, at 1025 hr at ≈ 100 m on the CES, I caught a Dendrophidion percarinatum. It inflated, exposing interscalar skin, and struck only once. During the morning Michael Fogden caught a beautiful little Leptophis nebulosus.

10 June

From $\approx 0800 - 1120$ walked w/ Manuel and Dave: out Sabalo-Esquina Trail to ≈ 1700 m to check the terciopelo stump (empty). at 0858 hr, ≈ 1125 m SSE, we caught an adult Dendrophidion veneter as it crawled rapidly away at trailside. When grabbed, it inflated the anterior $\approx \frac{1}{2}$ of its body, exposing the blue interscalar skin, and struck and bit at my hand. We came back by way of the Sendero El Swampo, where we saw large Felis tracks in the mud and checked the old Lachesis site at 750m sign on the trail (no snake). at 1102 hr, ≈ 200 m on the East River Rd., Manuel saw a fast brown snake, cf. Masticoglyps, that was too fast for us. At ≈ 1600 hr Carol Baird (grad student from Berkeley) took us out to her Heliconia study plot at ≈ 950 m on the West River Trail and pointed out a very young Bothrops schlegelii. The little viper, est. total length

Greene, H.

1984

10 June
(continued)

20cm, was in a flat, compact, folded (not really coiled) posture on a Heliconia trunk that was at an angle (see photos). Snake was such that tail was out to one side, head perpendicular to long axis of plant. Maybe a good stance to catch Norops? We left it alone in hopes of learning how long it will stay there. From ≈ 2030 to 2145 hr we walked out the CES to ≈ 800 m w/out seeing any vertebrates. Heard numerous Eleutherodactylus diastema, a few Agalychnis callidryas and some unidentified frogs, and a Crested Owl. Very bright moon and sky and almost no rain today.

11 June

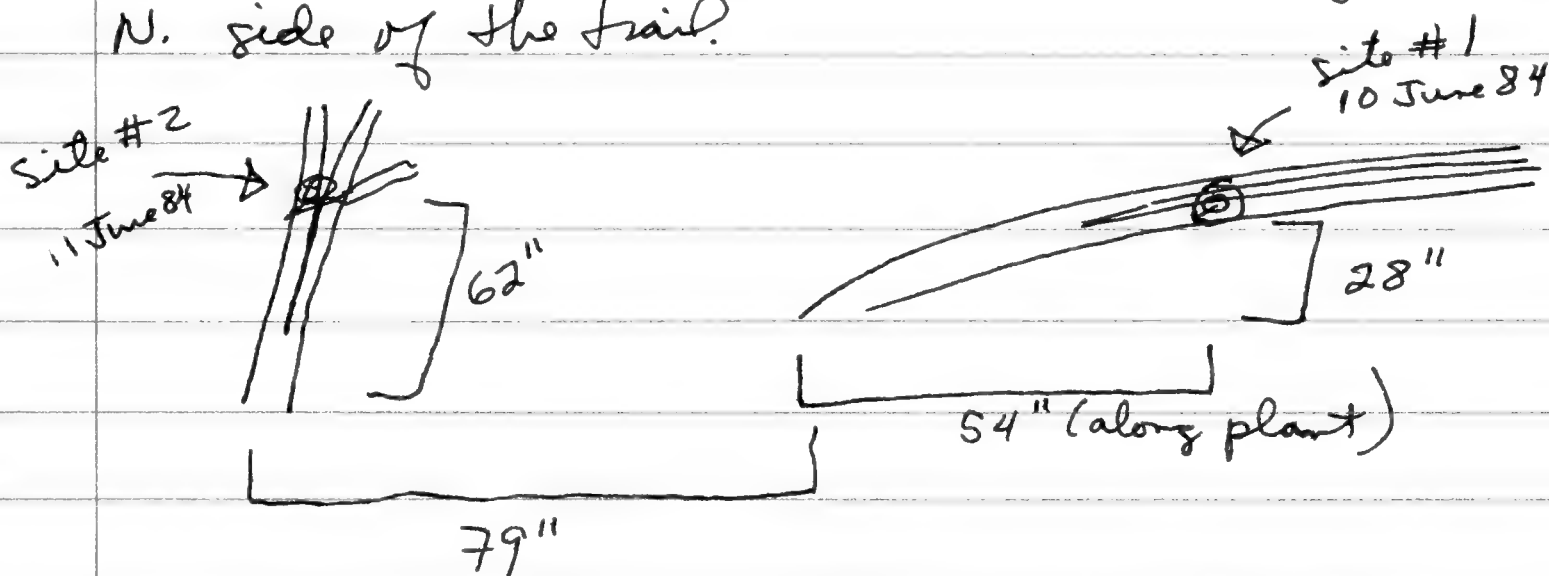
At ≈ 0800 hr Orlando found a very young, brightly colored Micrurus nigrocinctus active by the bridge between the dorm and the AC labs. Dave Hardy and I walked around the Camino Experimental and found a large Bufo marinus hopping across CEN, just past its junction w/ CES - the first I've ever seen in the forest. This was at 0845 hr. At 0857 hr I missed an Eleutherodactylus minus in litter at \approx CEN 600 m. We arrived at $50 \approx 970$ m to see the little Bothrops schlegelii from yesterday, and found it just finishing an anole, Norops limifrons - only one hind foot and the complete tail visible when we arrived at 0918 hr. Snake was in a new site ≈ 2 m from yesterday. ^{Anne Brooker} ~~Ann~~ Baker told me the snake was coiled at the new site when

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11 June
(continued)

when she arrived ≈ 0700 hr this morning. She had noticed the snake coiled and not feeding ≤ 0900 hr. Both sites are in Heliconia right along the trail, in a fairly open situation only a few 10's of meters S. of the Rio Puerto Viejo, on the N. side of the trail.



at 0930 hr the anole had disappeared entirely disappeared down the snake's throat, so the entire feeding event took $\approx 20-40$ minutes. The snake turned S. and by 0945 hr had crawled ≈ 6 " and assumed a loose coil facing in toward a thick Heliconia stem. In contrast to yesterday, it now seem "sheltered" and not positioned to ambush anything. Took photos of swallowing and post-feeding behavior, then gently collected the snake, returned to lab, and processed it. Caught a small Rana warschewitzii in litter on way back, ≈ 1000 hr. Bothrops schlegelii: 6.25 g, SV 232 mm, tail 41 mm, head width 8.0 mm. The Norops limifrons had been swallowed but double at the neck,

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11 June
(continued)

wt. ≈ 0.9 g, SV 39 mm, tail complete but not measured, max. dia. of head 5.4 mm. We reinserted the Norops into the Bothrops w/out much difficulty, and ≈ 1530 hr released it at capture site. When we left it was draped loosely along a small branch at the original place. Then walked out to arboretum, searched buttresses, and back to AC lab. Saw nothing. Really hard rain started ≈ 1900 hr.

12 June

Walked out Sendero Occidental and searched for the little Bothrops schlegelii from 0830 - 0845 hr, w/out success. Saw a Norops humilis ♂ and several N. leuifrons in the same Heliconia patch, as well as Dendrobates pumilio. Then walked CEN and out LOC to bridge, then back via CES. Saw a subadult Bufo haematiticus on the CEN at 0910 hr and picked up a small cat scat at ≈ 475 m on CEN. Just as we got to the jct. of CES and SOC, Ann Baker called us to an adult Pseustes pocilonotus in the trail at 10:00 hr; it inflated, gaped, and stuck when seized. It is marked. While we were examining it Michael Fogden caught an adult Leptophis depressirostris in high grass beside sidewalk at the origin of CES (forest edge); he'd already found a very young Chironius grandisquarnis. Took a quick coffee

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12 June
(continued)

break, then followed Michael and Patricia out to a roost of 11 Ectophylla alba, in their "homemade" tent under a Heliconia leaf on the SOR at ≈ 590 m. Started raining hard $\approx 12:15$ PM. Rained all afternoon and off and on into evening. Michael Fogden caught a big green Bothrops schlegelii in vegetation above the sidewalk near the Sura Bridge, and a sleeping Dendroplidion vinites $\approx \frac{1}{2}$ m above ground on vegetation, both after dark.

13 June

Left a little after 0800 w/ Dave and Manuel, out CCC to CC ≈ 1200 , then back by way of CCL. at 0844 hr ≈ 550 m, caught a brown Norops w/ orange dorsal ≈ 1.5 m up a tree trunk. at 0855, ≈ 500 m on CC, an Eleutherodactylus minus (?). at CC 700 m a big Felis onca scat (photos). at CC 850 m, ≈ 10 m apart, 2 cat scats. The first was completely exposed, seemingly a Felis onca scat, made solely of hair and teeth (peccary?). The second consisted of only a couple of small, very fresh pieces, partly covered by an obvious flat scrape, such that several square inches of earth were exposed and the leaves were over the feces. We wonder if this is from a small Felis concolor? We saw two other similar scraped places along nearly CC, perhaps where a (the?) cat

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13 June

(continued)

had winated. When we returned, the Fogdens were just headed out to where they'd found an oropel, the gold phase of Bothrops schlegelii. Went out with them and saw a spectacular snake. It is on a Heliconia inbricata petiole, $\approx 2+$ meters above ground, in a stand on the edge of Hunter's cacao grove. The snake is suspended on the petiole by its tail and posterior body, w/ its head and neck downward in a striking coil and pointed at the nearby (≈ 15 cm) inflorescence. Snake immobile while we moved around taking pictures, but once when my flash went off I saw it tongue flick. It seems ideally positioned to seize a hummingbird, and it is stunningly easy to see from several meters away. Michael remained when we left for lunch. It turns out that the big green one Michael found east of the bridge last night is one I caught and marked on 3 June 1983 on the west end of the bridge! Michael watched the oropel til 1700, I watched it til 1900, and Dave took over right after that. From ≈ 1000 hr til 1928 the snake scarcely moved, an impressive feat given it was coiled around an almost vertical petiole. At 1924 hr the snake began moving up, then turned down, crossed to an adjacent tree, whereupon he captured it and

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13 June
(continued)

brought it in to avoid its escape.

14 June

Walked Camino Experimental loop and out to SOC ≈ 960 , checked the two sides for the little green Bothrops schlegelii but didn't see it. Saw only a few Norops along the way. A gray overcast morning w/ intermittent light showers. Michael got two Bothrops nasutus and a Rhadinaea decorata on the Loop Trail.

15 June

Dave and I got up at 0430 and walked on the Camino Experimental until ≈ 0515 hr in hopes of seeing an active bushmaster, but found nothing. After breakfast, we walked from 0800 to ≈ 1120 : out SOC, SHO, across the big swamp to the Camino Central to ≈ 1650 m. Returned by way of the Camino Circular Tejano. At 0823 hr, ≈ 135 m on SOC, we caught a pretty, reddish Xenodon rhabdophalus as it crawled rapidly off the trail in leaf litter. It thrashed and shot when seized, and tried to bite when held by the neck. At 0845 hr, SHO ≈ 390 m, we missed an unidentified Crown and/or gray snake, ≥ 18 " total length, in leaves beside the trail - the possibility that it was a Bothrops asper made us hesitate a little too long, and also just at that moment Dave got stung by two bees at once.

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15 June
(continued)

on his right hand. at 1020h, \approx CC1375m, we found a fairly fresh large cat scat that had been scraped over a 6" limb that had fallen across the trail. Took photos. a few meters farther towards the station there was a tremendous uproar in the canopy overhead, as we were harangued and bombarded by ≥ 5 Ateles. Orlando returned at lunch w/ 4 bags of cat scats. Soon after lunch \approx 1300-1400h, George Schatz (Botany, U. Wisconsin) saw a Spilotes pullatus attacking a juvenile, ambulatory rat near the little bridge on the SOC (\approx 700 m?). The ^{adult} rat was more brown than gray and from the size must have been Proechimys; George assured me it was not an opossum. He first saw the adult rat and at least two young going across the trail, while a third young went to the opposite side, seeming very nervous. As George walked past the rat and a large tree root, the \approx 1.5m Spilotes dashed out and grabbed a fourth rat. It chomped the juvenile rat briefly then held it in a body coil, released the mouth and faced George in what he felt was an aggressive stance. He returned to the station for Manuel and Dave, but they couldn't find the snake or the rats. at \approx 1900h in the low vegetation beside

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15 June
(continued)

the AC lab sidewalk, Michael Fogden watched a young Amantodes cerdwa eat a small anole. It took 2 minutes to swallow the lizard to the base of the tail, 5 minutes to completely ingest it. When handled, the snake gives off a very foul cloacal discharge. Amantodes? head width 7.4 mm; tail 125 mm; SV 513 mm; 6.5 g. Prey was swallowed head-first, a Norops livifrons: SV 9 mm, head width 3.4 mm, 0.15 g.

16 June

With Dave Hardy, walked out CCC to Southwest Trail, then up West Boundary Trail and back in on the Camino Experimental Sur. At 0846 hr, right at the 600m sign on SSO, we saw two large, turquoise, tinamarou eggs at the base of a big tree, between the buttresses.

at 1006 hr by the 250m sign on CES, I walked over a young adult (size, pattern) Mastigodryas melanolomus without seeing or disturbing it. The snake was frozen in a crawling posture, at the edge of a hollow log abutting the trail. The snake was on the trail, head up and pointing at the log. Would have been a good place from which to ambush a foraging Boieira festiva. The snake thrashed and bit, hanging on tenaciously, when I seized it. at 1925 hr Anne Baker

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16 June
(continued)

(Berkeley postgrad) showed Michael Fogden asleep on a limb of a sapling, about 2.2 m above ground at the west end of the Sura Bridge on the AC lab sidewalk, a large Masticodytes which I caught.

17 June

Rained all morning and we stayed in. Right at noon ~~the~~ students from Duke summoned us to a Pentachethra tree just off the CCL near its origin. One man (Richard) had bent down to examine a seedling and saw a large Bothrops asper moving off. While one went for us the other watched, and shortly before we arrived it went down a hole. While we were standing around the hole it came out behind us and started into a brush pile, where we caught it. Snake was not aggressive, although it bit the snake hook as we were getting into a plastic can. It is large ♀, seemingly not gravid and without food.

18 June

At ≈ 0830 hr we palped a Minimitter Model L transmitter (9g) into the ♀ Bothrops asper w/out difficulty. I held the head, Manuel the body, and Richard the tail. Dave pushed down the transmitter and clipped the 15th ventral anterior to the anal plate. The snake weighed 2.15 kg, SV of 1595 mm, tail of 185 mm, and therefore I suspect, allowing for little kinks, a total length of 1.8 m. We

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18 June
(continued)

her at the capture site at 1008 hr, whereupon she crawled 2-3 m and coiled loosely beside a fallen log w/ her head positioned vertically against it. For the next ≈ 42 min the only movements were tongue flick clusters a couple of times when I moved and, at least twice, a head shake, seemingly at the mosquitoes and occasional flies around her head. at 1050:14 hr she began rubbing the sides of her head on the log, as if trying to shed (We knew this was imminent, as the old skin broke in a few places during capture and processing.) at 1058 hr she was stretched full length along and under the log (it was $\approx 30-40$ cm above the ground here), moving very slowly across the forest floor. Periodically she pushed her snout and sides of her head against leaves, standing stems, etc. at 1148 hr the snake slowly crossed the CCL going N, still trying to shed, with some loose skin hanging off the head now. at 1156 hr, Temp $26/30$, the snake was ≈ 3 m N of the CCL, heading N. When we returned from lunch at ≈ 1345 hr, snake was in a loose coil under a fallen Welfia frond (dry, brown) that leaned against a hillock of dirt, forming a cover. Temp. $27/30$. ≈ 1415 discovered snake also moved a few meters farther N. For the next 3 hours the snake crawled slowly northward.

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18 June
(continued)

at 1600 hr we saw her emerge into the open from alongside a fallen log, with \approx ant. $\frac{1}{3}$ of body showing new skin. She continued crawling, at times listing strangely a part or most of her body to (?) rub a particular portion. By \approx 1640 hr she reached the buttresses of a huge Ceiba tree, crawled partly into one space, then against the buttress, out, and into the next one. At each of two buttress walls she applied the anterior part of her body flat against the wood, then crawled the rest through that stretch, still rubbing. After the second buttress, she turned out into the forest, crawling along under a patch of small palms. I was repeatedly impressed by two aspects of skin control: "rippling" at the site of new-old skin separation, and rolling of parts of her body to rub the dorsum on the ground. At times $\frac{1}{2}$ or more of the yellow venter was showing. at \approx 1710 hr I stepped from behind a Ceiba root, she apparently sensed me, and crawled rapidly ≥ 2 body lengths away. We left. Returned with Dave, Manuel, and Richard \approx 2050 hr. Got signal in same general area, but it took us \approx 45 minutes until Manuel saw her coiled w/ head up at an angle under a fallen, partly crumpled brown Welfia frond. W/in 1 min of us putting the light on her she

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18 June
(continued)

turned and crawled partly out, head N, and froze. We left quietly.

19 June

Dave Hardy and I went out and found the snake at 0800hr. She was coiled under the same Welfia frond: loose flat coil w/ head on an outer loop, facing NNW. Took some photos, did not, apparently, disturb her, and left at 0820hr. This site is on a terrace edge, a few meters beyond the big Caida and overlooking the Salto. Snake now seems to be clearly shed. Temp. $26/30$.

at ≈ 0950 hr I released the subadult Mastigodryas that we caught 16 June at 250 CES. as I reached the spot by the log, a juvenile Ameiva ran across the only large blotch of sunlight in view on the trail, precisely the spot where the snake had been lying when we first spied it.

We returned at 1045hr, snake same, $29/30$; ground 24.2°C ; air 1m up in shade 26.2° ; We left at 1102hr.

We returned at 1423hr, snake same place except head now $\approx 180^{\circ}$ from before and less elevated. The snake had 2 complete adjacent loops w/ remainder under them, head in center and lying on inner loop facing out.

Snake $30/30$, ground 25.2° , air 26.5° . Just before we left at 1432hr, snake suddenly swung head to face the stream and land w/ it a few inches outside the outer loop. I was standing 2m away for a couple of minutes, immobile, but

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19 June
(continued)

I don't think I caused the movement. Until that movement the snake seemed "asleep" and was positioned such that it's head faced into the Welfia frond shelter, seemingly not a good posture from which to ambush anything. But it surely moved fast! At 1645hr the B. asper's coil had shifted a little to the ~~left~~ N; head down, facing WSW; 30/30; ground, 25.0°; air, 25.2°. at 2020hr, snake same, ^{29/30}. Cathy Propper (Oregon St. U.) saw a dark snake chase an Ameiva at 1027hr in the Arboretum, for ≈ 20 m down a slope. She wasn't sure if it was Spilotes or Masticodryas. At 1805hr I caught an adult (gravid ♀?) Corallus annulatus crawling on a work bench behind the dining hall; snake was fairly calm, but snapped suddenly when held behind the head. During a later photo session its behavior was the same - very tranquil if handled gently.

20 June

at 0816hr we found the big Bothrops asper \approx 10-15" NW of last position, in flat coil, 27/30. at 1700hr during a heavy rain, the snake is almost completely concealed under the same Welfia frond. As we started back in the downpour (sky very dark) we found a large adult Bothrops nasutus crawling away from the boardwalk in leaves at the jet. of CCLad SOR. This morning two big ~~boas~~ Boa constrictor

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20 June
(continued)

were seen by workmen in Hunter's Cacao grove at the NW edge of La Selva, one of which (♂) Manuel caught. Just before noon a large, spectacular Polychrus gularosus fell out of a small, lone tree at the edge of the Reje Reje Grove, at Debra Clark's feet. It is very prone to bite, can move up a tree fairly fast when pursued, and flattens its body when threatened. I am impressed that the hind feet are slightly (?) zygodactylous. Last night Michael Fogden caught an adult Micrurus alleni in the CES swamp, swimming in water and muck. When maneuvered for photos, it coils and elevates the tail only when restrained; otherwise seems to depend on fast and erratic crawling. (See also below.)

21 June

at 0830 hr the big ♀ Bothrops asper is in the same position as last night, but when I stepped carefully to within 1 m of the palm frond she suddenly darted about \leq one body length out toward the stream (and thus away from me - I have been repeatedly impressed by this animal's timidity [?] except when cornered. We've also been impressed with how "touchy" she is compared to all the Loxocis we've seen). We left quietly and walked out to CES 700 w/out seeing anything. At 1015 hr we caught an adult Bothrops asper that Isaias showed

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21 June
continued

us. It was under a long platform that lay on the ground under the porch of "Rafael's House," overlooking the Rio Puerto Viejo. Isaias had lifted the wooden thing, seen the *Irciopo* and set it down gently. The snake seemed asleep, tight, high coil, w/ head facing under the house. When I tried to gently hook it out, the snake crawled fairly rapidly towards the darkness under the house. When I restrained it with the hook and a hand on the tail, it struck 2-3 times, out and up, such that the mouth flashed wide open and white, and seemed to be held open for a short time. Took like ≈ 1.5 m total length, very pretty. Was in a good place to cause a snakebite accident! Later when we put it out in leaves to photograph, this snake seemed very calm, and I was able to carefully and slowly lift it into a car on a hook. [Forgot to write on 20 June that we walked out to ≈ 600 CES at night, with a detour into the CES swamp. I found a subadult (?) Oxyrhopus petola stretched out along the rib of a small palm leaf, ≈ 1 m above ground at roadside, CES 200; this was 2100-2200 hr. In the swamp we saw Agalychnis callidryas, A. saltator, Hyla glaucocrocea, and Hyla boulengerii, and heard Gastrophysa pictiventris.

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21 June
(continued)

at 1034 hr the big ♀ B. asper is in a flat coil facing the Salto, ≈ 1 m N of the Welfia frond but almost covered w/ leaves; $^{26}/_{30}$.

at ≈ 2115 hr snake is same coil but head is on outer edge, facing S. Seems alert; $^{26}/_{30}$.

22 June

at 0829 hr snake is in same spot, N. of Welfia frond, but now head faces N to Salto and is down on an outer coil; $^{25}/_{30}$. at 1028 hr I caught a young adult Leptophis depressirostris basking (?) in leaves beside the side wall at the edge of the PB Grove. This was in a patch of bright sunlight, after much rain lately. I pinned the snake's tail initially, and it turned and tried to escape into the adjacent forest rather than across the trail. After lunch we processed the Bothrops asper from Rafael's house and inserted a Channel 2 Minimeter (the larger ♀ off CCL is Ch. 5). Snake has a SV of 1322 mm, tail 183 mm, and wt 1.2 kg. In contrast to the photo session yesterday, this time the snake was nervous and snappy, alternating fast sliding away from me w/ sudden turn-and-lunge then brief pause w/ wide open mouth. We released this snake at 1530 hr and it immediately coiled in virtually the same place it was captured. When I checked at 1630 hr it had moved to the opposite end of the board. When we

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22 June
(continued)

returned at 2245 hr snake had moved. Finally located a very strong signal in high grass on a slope just NW of the dock stairs, off the edge of the terrace the house is on. The snake had thus moved several tens of meters to the ENE. We did not persevere in visually locating the snake because of the difficulty of seeing it. While we stood as close as we got, Manuel noticed a Sylvilagus erect ≈ 3 m away, frozen. Despite our noise, light, and movements this rabbit remained stationary. Was it aware of the Lecropele or us? at 2345 hr we located the larger ♀ B. asper (Ch 5), now several meters SW of the Welfia frond and up the slope of a hillock. She was in a flat coil (couldn't see her well) on a slope that faced away from the stream; $27/30$. at 2104 hr, as we initially went out to locate the two Bothrops, we encountered a massive Lachesis muta crossing the trail at SOR 100 m. Manuel was in front and suddenly exclaimed something, then went from talking extremely fast in Spanish to sputtering. I thought he saw a jaguar and I stepped to the left of the boardwalk to get a look. Maybe 20 m ahead, clearly illuminated, was the body and tail of an apparently huge bushmaster. The tail and posterior hung off the left of the boardwalk, and the body extended

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2 June
(continued)

out of sight to the right into the forest. My initial thought was, that snake is 10-12 feet long and we are not going to catch it! Sent Manuel and Sarah Lieberman for a garbage can. When I first approached the snake it was frozen as if crawling slowly, head down to ground. I could see that it was very heavy, but perhaps not even 2 m long. When I stepped off the boardwalk about 3 m away it suddenly turned, formed an elevated S-coil, and froze. When I took one step it raised the coil, vibrated the tail audibly, and, after a moment, struck toward me. The mouth was opened but there was no obvious "flash" as with *Lecrionophis*. Twice the snake relaxed the coil and started slowly into the forest w/ head down to the ground, and each time I hooked it out it quickly assumed an S-coil. Manuel and Sarah arrived w/ the can. At least four or five times I tried to lift the snake, and in all but one instance as soon as it was going off the ground it turned up the hook while forming an S-coil. As I set it down each time, it started into the forest. When I took a step toward it the snake turned, ^{also inflated neck} coiled, and at least once, struck. That time as I jumped back I heard Manuel and Sarah behind

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22 June
(continued)

one crash into the bushes. Once I got it almost in, then the next time, all the way. The snake weighs ≈ 4.2 kg, heaviest we've caught yet. It seems to be either gravid or have a large food item, and I'm not sure of the length. This is the first we've caught at night, and was impressively more aggressive than those handled in the daytime. Ironical that Dave Hardy, who originally initiated his 2 week visit in hopes of seeing a bushmaster, left $8\frac{1}{2}$ hr before we found this one. What a day!

23 June

At 1000 hr the smaller Bothrops asper (ch. 2) is in high grass a few meters N of the dock stairs and just above the river; $25/30$. Still can't see it. at ≈ 1030 hr the larger B. asper (ch 5) is in the same place, facing NE (took photos). Rained most of the afternoon so couldn't radiotag the Lachesis. at 1620 hr ch 2 is apparently in the same place; $26/30$. at 1636 hr, ch 5 is in the same place and position; $26/30$.

24 June

Most of the morning was sunny and very hot. at 1025 hr, the ch 2 Bothrops asper was apparently in the same place; $28/30$. at 1036 hr, the ch 5 B. asper was in the same place w/ head facing S, on an outer coil; $26/30$ (in shaded area). It began raining hard just after lunch and continued until ≈ 1630 hr, so we couldn't tag the Lachesis. Continued to drizzle after that. at 1730 hr I checked the

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24 June
(continued)

Rio Puerto Viejo below the station, at the base of a long chain of concrete steps. Normally the river here moves briskly, but is shallow, clear enough to see easily the large Cichlasoma fish, and so mellow as to be easy to stand in and bath. Now the water is a light reddish brown, swirling ^{furiously} around the trunks of big trees it has just surrounded, and going by very fast. Trees that were once well up on the banks have their lower limbs in the current, leaves whipping around. The Sura, a side stream has risen so high it's backflowing under its bridge, and foliage of streamside trees is visible beneath the murky surface. This Puerto Viejo is not the benign river across which two of us waded in the dark carrying a heavy, seriously ill Eric Barnett a couple of years ago! After some thought I decided to see how fast it took the river to rise the height of one step, calibrated from first splash over of one to the next step: exactly 5 minutes for ≈ 20 cm. While I sat there in the dusk, waiting for the second splash, huge logs went by. Each was surrounded by a slimy, foamy froth of leaves and other debris, a slick of elongate shape due to the current (I suppose). On one log was a whitish yellow, inscutable, long dead pig. The pig was aligned along

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24 June
continued)

the long axis of the log, its ears and legs flopped down the sides and large joggled splits in its bloated sides. It's not hard to see how tropical writers like Garcia Marquez and Vargas Llosa drift so easily into the surreal! at 2044 hr ch 2 was apparently in the same area; 22/30. at 2053 hr, ch 5 was in the same place w/ its head facing E; 24/30. at 2109 hr, George Schatz showed me a gravid ♀ Leptodeira septentrionalis, coiled on dirt w/ its head resting against the sidewalk to the bathhouse.

25 June

at 0700 we examined the Lochesis, which turned out to be a male and, since it was caught in the Reserve, was therefore not radiotagged. Snake has SV 188 cm, tail 18.5 cm, and therefore a total length of ≈ 2.1 m. It had patches of dry skin, apparently about to shed, and at least 9 large gorged ticks (2 on head, rest scattered on either side of mid-dorsal ridge). Throughout our restraint of the snake it tried to flex, but no problems. We were assisted by Ann Brooke, Ana Gomez, Debbie Clark, and Sarah Lieberman. at ≈ 0900 hr we failed to find the signal of Bothrops asper ch 2, as did Manuel over a 2 hour period later in the morning. Perhaps it washed or swam away when the river rose yesterday. at 0914 hr ch 5 was in the same place w/ head pointing S; 24/30. When Manuel checked this

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25 June
(continued)

snake \approx 1100hr it had moved \approx 1.5m W, under the edge of a large, fallen Diefenbachia^{25/30} leaf. At 1710 hr, this snake is same place, head facing NE and visible from side. At \approx 1900hr we released the Lachesis at 100m on the shore, and it slowly crawled W into the forest, head always down to the leaves and tongue flicking often. I touched its tail several times but never elicited the defensive behavior seen when we first encountered it. We checked the ♀ Bothrops asper Ch 5 at \approx 2010hr; in same place, head pointed NW and hard to see from side of leaf. This snake is very well concealed!

26 June

a bright sunny day at breakfast. At 0807hr I went out alone to check Bothrops asper Ch 5. Forest all aglow w/ light patches. Snake is in the same place, under the Diefenbachia leaf w/ its head pointing to the Salto, over a loop. Oddly, its tail is out from the coil a few inches - has it moved? Took photos. Manuel, Sarah Lieberman, and Angel the boatman went upstream at \approx 10 to search for the other B. asper. They picked up the signal \approx 200m downstream from Rafael's house, and when they went ashore they saw an adult Spilotes go up a tree. Sarah and Angel came to the station for me and we boated up river. Very enchanting: cool breeze, waves, no bugs, bird noises. Two large Rhinoclemmys on stumps in the river.

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26 June
(continued)

An adult Caiman crocodilus was lying on the long axis of a log on a sandbar at the river's edge, its mouth open and ~~snout~~^{legs} hanging down. Tongue was rather bright yellow, sides of body olive w/ darker bars on tail. When we arrived we could see the Spilotes $\approx 15-20$ m up in a tree over the river, and it was the case that the signal was strongest when the receive was held high in the air. We became semi-believers that the Spilotes had eaten the Bothrops, tho I remained doubtful because of the lack of obvious girth in the former. Manuel and Sarah remained w/ the snake and the rest of us returned after lunch, ≈ 1330 hrs, by trail. The Spilotes eventually came to w/in ≈ 3 m of us, but when we shook the small tree, it moved up and out of sight. The speed and agility w/ which that snake moved in the foliage was impressive - it seemed "at home." As we walked around on the ground trying to see it, the signal seemed louder at one point over the edge of the terrace, on the steep slope of the forested river bank. He said, "it seems we are still looking for a Terciopelo." Manuel went down the slope and w/in 10 minutes found the snake, under leaves $\approx \frac{1}{2}$ way down to the river, such that it could only be seen

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26 June
(continued)

through a little gap in them at ground level. It was impossible to see from anywhere else! Picked up a large piece of shed Iguana skin on the ground nearby. Temp of snake $25/30$ at 1400hr. at 1415hr we found the big ♀ B. asper in her same spot, head pointed under leaf and tail no longer visible; $27/30$. It is still sunny and partly cloudy, hot. Manuel called Alejandro Solazano at the Instituto Clodomiro Picado. They had a Loxosceles scat w/ Coendou spines in it, and a scat from a 2.08m B. asper w/ spines of Hoplonotus. At ≈ 1630 hr Manuel checked Ch2 and found it still there, head not showing, $25/30$.

27 June

at 0736hr I found the big B. asper Ch5 in the same place; could see head under leaf, but tail and post. of body were outside on the ground in a hairpin form, not part of the main coil; $24/30$. Just before noon Ann Brooke found a Polychrus guttatus ♂ dead on the SOR, which I preserved. It seemed very slender but otherwise intact, so cause of death is a mystery. Someone brought in two skins that turned out to be Celestes sp. and Diploglossus bilobatus, the latter apparently a gravid ♀. at 2015hr I found Ch5 in coil under the leaf; couldn't see head; $25/30$.

28 June

Manuel and I went up the Rio Puerto Viejo from

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28 June
(continued)

the station to Rafael's house and found the B asper (Ch 2) in the same site on the river bank. At 0839 hr we found Ch 5 in its usual place. Michael Fogden caught an adult Micrurus nigrocinctus in the big Baje grove that was discovered by workmen cutting grass this morning. At about ≈ 2015 hr Michael Fogden came running in and led me to an adult Lachesis muta that he found crawling up to the trail at ≈ 650 CCC. He left a flashlight on the ground pointing into the snake's face and it didn't move for the 14 minutes it took for his ≈ 2 km round trip! Caught it w/ little difficulty: everytime I gently put a hook on the snake to move it out onto the trail it drew back its body into an S coil, then turned and began to crawl slowly into the forest. At 2115 hr the B. asper Ch 5 was OK; $26/30$. In talking w/ Manuel tonight I learned he has not kept written note on his checks of the snakes. One or the other of us has checked Ch 5 everyday in the early AM, sometime in the afternoon (usually late) and in the evening ($\approx 19-2200$ hr). The other snake (Ch 2) has been checked at least once each day since it was relocated.

29 June

Started raining ≈ 0730 hr and continued into the afternoon. Alejandro Salazar arrived from the Instituto Clodomiro Picado. Manuel checked

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29 June
(continued)

both Bothrops asper before lunch and they were in the same places. Manuel checked Ch 2 & 5 at 2100 hr, both same place.

30 June

Michael Fogden saw three Micurus nigrocinctus in one trip around the Camino Circular last night (≈ 2 km). At ≈ 0910 hr this morning he caught a 390 g Larpropeltis triangulum just as its tail was disappearing into a hollow log off the AC lab sidewalk in the forest. I palped a freshly eaten (swallowed head-first) Heliconys out of the snake that weighed 38.5 g. We took out the Lachesis at ≈ 0930 - she inflated and formed an exaggerated S-coil, but never struck. Had some difficulty w/ the transmitter - couldn't get it past ca. 1/3 down. At 1030 hr I checked Bothrops asper Ch 5 and found it still under the leaf; 25/30. Ana Gomez and her helper Danilo came in right after lunch to tell us they'd found a big Terciopelo in a fresh gap at ≈ 700 on the El Swampo trail. On our way out we found a tiny Bothrops nasutus at 550 CCC at 1330 hr, coiled in the trail. Found the B. asper coiled on a log ≈ 10 cm in diameter and adjacent bush, partly in sun, obviously swollen w/ food or young. Danilo had been working on all fours and suddenly saw the snake crawling between his legs! Said he "had a new birthday" today, meaning I guess, that he's "on borrowed time" from now on. Snake weighed 2.15 kg and was

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30 June,
continued)

palping we determined it is gravid. Rained off and on all day today, and at ≈ 2200 hr I noticed that the Rio Puerto Viejo is higher than I've ever seen it and the Sura is flowing backward at a good clip.

1 July

at ≈ 0945 hr Alejandro Solórzano found an Erythrolamprus mimus crawling in leaf litter beside the AC Tab sidewalk in forest. It tried to bite him, and tail displayed (shrink, slight coil) and cloacal discharged (fairly foul) when I handled it. ≈ 1000 hr M. Fogden saw a small adult Masticodryas melanotomus make an unsuccessful dash at a small aneura festiva in the successional plots; the snake missed the lizard by a few inches and did not pursue it. At 1400 hr we released the Lachesis muta Ch 1 at the capture site, at 1426 hr Bothrops asper Ch 5 was in the same place under the Dyckia sp. leaf; $^{26}/_{30}$. At ≈ 1500 hr B. asper Ch 2 was same; $^{25}/_{30}$. Checked the L. muta Ch 1 at ≈ 1530 hr; $^{27}/_{30}$. At ≈ 2130 hr Michael Fogden found a 2.08 m Lachesis muta at ≈ 320 m on the CES, crawling. I hooked it very gently and it never even formed an S-coil.

2 July

When I checked Bothrops asper Ch 5 at 0740 hr it was gone, and later learned that Manuel found it missing but a small scat and the

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2 July
(continued)

radio behind when he checked late last night.
at 0901 hr I found a neonate Dendrophidion virgatum
at ≈ 500 m on the Sendero El Suanpo; it inflated most
of the body, formed an exaggerated S-coil, struck and
bit when handled. Palped (nothing) and released it.
at 0917 hr found a fresh cat scat at SSU ≈ 740 ,
probably either Felis onca or Felis pardalis.
Later in the morning found a striped f Norops
capito ≈ 1 m up on a small tree in the swamp.

3 July

at 0820 hr the Ch 1 Lachesis muta on the
Near Loop is in the same place, same posture
w/head facing SE; $23/30$. at 0911 hr the gravid
 f Bothrops asper is coiled on a fallen log
 ≈ 4 m off the CCL at ≈ 760 m, in a gap. We
released the snake here yesterday, and this
resting site is ≈ 20 m from the release site. The
snake is in shade but bright sun is ≈ 1 m
away. $27/30$ at 0924 hr ground temp in shade here
is 24.5°C ; snake $28/30$. at 0926 hr the snake opened
its mouth slightly. at 0957 hr the Ch 2 B.
asper is in the same hole on the SW bank of
the Rio Puerto Viejo and seems to be in pre-
shedding condition; $24/30$. at 1036 hr the
gravid f B. asper Ch 4 still has head facing
N; $30/30$; ground 26.0°C . at 1050 hr. I
grabbed a ≈ 1 m long Leptophis chaetilla
as it crawled over a mossy tree buttress at

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3 July
continued)

≈ 150 m on the CCL. It gaped, struck repeatedly, and cloacal discharged. At 1435 hr the Lachesis muta Ch 1 is in the same place, head face N now; $26/30$. At 1454 hr the ♀ B. asper is completely exposed to an overcast sky, head facing SSE; $32/30$. Before lunch, Helen Young (SUNY Stony Brook) saw an Oxybelis aeneus eating a juvenile Ameiva festiva (blue tail). Two days ago she saw a Leucopeltis semiplumbea eating an unidentified snake. At 1547 hr I found a very pretty ♀ Norops capito very low on the buttress of a moss-covered tree at ≈ 1000 m on the CCC.

4 July

Spent all day doing repeated checks of the two Bothrops asper (Ch 2, 4) and the Lachesis muta (Ch 1) w/ OTS students (see separate data sheets).

5 July

at 0417 I saw a paca, ~~Dasy~~ Agouti paca, chewing something as it moved off on a little paca route from the SOR right behind the station. Spent the day making repeated checks of the two B. asper and the Lachesis muta on CCC w/ OTS students. At 0918 hr I caught an adult Pseustes poecilonotus as it crawled across the CCC at ≈ 900 m. It was very

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5 July
(continued)

very skinny w/ a stub tail. deflated, gaped, and bit when handled. This is the second really skinny Pseudos I've seen in a week (other was caught by someone in the Peje Baye grove) and they are the only obviously emaciated snakes I've ever seen here.

6 July

We inserted a radio in the 2.08 m Lachesis muta from the CES on 3 July, released it the afternoon of 4 July, and failed to find the signal the next morning. ^{this} ~~yesterday~~ morning Manuel located the signal at a burrow, perhaps of Dasyatis. ~~Last night he saw the snake, a ♂, out hunting nearby and early~~ at 0922 hr I can't see the gravid ♀ Bothrops asper Ch 4, but get a signal from the same treefall; overcast, $^{26}/_{30}$. at 0926 hr I spotted a part of the body, now behind a big bromeliad on the SE side of a standing tree and still against the same fallen tree trunk, ≈ 1 m from the previous site. at 1001 hr the snake is same; overcast; $^{26}/_{30}$; air 26°C ; ground 25°C . at 1030 hr snake is same; overcast; $^{27}/_{30}$; air, 26°C ; ground, 25.2°C . I stupidly spit from inside my mosquito net. [Forgot to note that I got stung by a bala, Peraponera clavata here yesterday. I saw it go down my pant leg into my boot, grabbed for it, and felt a sharp, hot, intense sting. Jim Kieges said I was dancing around like a Cossack!] At 1038 hr it is getting sunny. From

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6 July atop a nearby log I can see ≤ 1 m of the
(continued) snake's body, in a hairpin, but not the head.
Snake is on the back edge of the same log as
all along, largely hidden from view by sticks
and the large bromeliad. At 1101 hr snake is the same;
 $27/30$; air, 26°C ; ground 25.8°C . After lunch I
walked out by way of CCC w/ Dave and Debbie Clark.
At 1401 hr found the Lachesis muta Ch1 in the same
place (didn't have a receiver for it w/ me). At 1419 hr
B. asper Ch4 is now back in its previous
position, N of and a little behind the bromeliad;
overcast; $29/30$; ground, 26.2°C ; air, 26°C . At
1500 hr there was a very brief, light shower.
Snake same; $29/30$; air, 26°C ; ground, 26°C . At
1530 hr, snake, $29/30$; ground, 25.8°C ; air, 26°C .
At 1536 hr patches of blue sky have opened up
and there is an uproar of cicadas. At 1600 hr
snake is same, $29/30$; air, 26°C ; ground, 26°C .
After dark Manuel found the Lachesis muta
on CES out and hunting a short distance
from the hole.

7 July Early this morning Manuel saw the Lachesis
muta on CES suddenly turn and disappear
down the hole. At 0930 hr I found the Bothrops
asper Ch4 in full sun w/ beads of water on
her back, head facing NW. Snake was in a
round flat coil and I took photos. It was

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7 July
(continued)

N of the bromeliad, as yesterday. Sunny, partly cloudy; air, 25 C; ^{snake 26/30} ground, 24.5 C. at 0937 hr snake was only partly in sun. at 1000 hr snake was same, 28/30; ground and air, 25 C. at 1036 hr snake same, 28/30; air, 25.2 C. at 1048 hr I caught a juvenile B. asper at ≈ 700 m CCL; it was seen crawling away in litter at trailside when Danilo reached down to pick up a Pipteryx flower. at 1100 hr snake same, 28/30; ground 25.8 C; air, 26 C. at 1122 hr I found the Ch 2 B. asper in the same hole in the river bank, skin still looking cloudy; 24/30; air, 27 C; ground, 25 C. at 1355 hr I found the Ch 1 Lachesis muta on CCC in the same site w/ its head down in its coil, 25/30; air, 26 C; ground, 25 C. This is just off the edge of an old gap, and sometimes a little sun hits the snake; light, intermittent rain now. at 1415 hr the Ch 4 B. asper is in the same place, head facing ENE, 30/30; air, 26.8 C; ground, 26 C. Now sunny but the treefall is mostly in the shade. at 1430 hr it is still 30/30. at 1500 hr the snake is 30/30; air, 26 C; ground, 26 C.

8 July

at 1015 hr the Ch 4 B. asper is on the tree trunk behind the bromeliad, fully exposed, w/ head up on an outer loop and facing

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8 July
(continued)

SE; $29/30$; air, 26C; ground, 24.8C. Sky is bright overcast, hot and humid. at 1035 hr snake is same, $29/30$; ground, 25C; air, 25.2C. Took several tightly framed photos using Michael Fozden's tripod. The snake's tail trails out of the coil and up into the leaves of the big bromeliad, as if it had crawled through there. This site is on the NE side of a gap at ≈ 760 CCL and never receives a lot of direct sun. The part of the gap (SW) across the CCL is sometimes in large patches of direct sun light, no more than 8 m from this snake. at 1100 hr snake is same, $29/30$; air, 26C; ground, 25.2C. at 1130 hr it is still bright and overcast, snake $30/30$; ground, 25.5C; air, 26C. at 1155 hr, snake $30/30$; ground, 25.8C; air, 26C. at 1410 hr I checked the ♂ Lachesis muta at \approx CE5320 (Ch3); it is still in the hole, $25/30$. at 1445 hr I found L. muta Ch1 in the same place on CCC, $25/30$; ground, 25C; air, 25.8; overcast. at 1515 hr B. asper Ch4 is not visible but the signal is strongest from the brush pile in the vicinity of the bromeliad, $34/30$; ground, 25.6C; air, 27.8C; blue sky, partly cloudy. Did it go down because of heat or because of army ants, which are now trekking right through where the snake was this morning?

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8 July (continued) at 1600hr, w/ the Fozders, I found B. asper Ch 2 in same place, $^{25}/_{30}$; air, 26C; ground, 25.2C. Bright sky, partly cloudy.

9 July at 0745hr I can't see B. asper Ch 2, but the signal is still strong from the same place; $^{25}/_{30}$; air, 24C; ground, 24C. Clear and sunny. at \approx 0815hr photographed Norops limifrons and caught pretty N. lemurinus ♀ \approx 1m up on leaf. Very nimbly jumped to adjacent tree. at 0830hr, snake, $^{25}/_{30}$; air, 24.5C; ground, 24.2C. at \approx 0845hr walked completely around that part of the gap (no fun, scary) and signal seems strongest by bromeliad, under brush. Couldn't see snake. Still hot and sunny. at 0900hr snake is $^{25}/_{30}$; air, 25C; ground, 25C; bright, partly cloudy. Thinking about art and landscape: surrealistic forest and Garcia Marquez versus the existential desert and Camus. at 0930 hr it is still bright and partly cloudy, $^{22}/_{30}$; air, 26C; ground, 25C. at 0955hr I spotted the snake stretched out and emerging from brush on the E side and \approx 3m from the bromeliad. Took photos. Snake was in full sun, sky overcast. Head points W from a hairpin \approx 10 inches back, and rest of the visible ($\approx \frac{1}{2}$) part of snake is pointing E. $^{26}/_{30}$; air, 26C; ground, 25C. at 1015hr, snake

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9 July
(continued)

same, $28/30$; air, 26°C . It has been in the shade almost all the time, but there is still sun nearby. at 1035 hr, snake $28/30$; air, 26°C ; ground, 26°C . at 1051 hr, head has now turned SE and is out in space off a large leaf. I saw clusters of tongue flicks despite the fact I was well hidden behind a palm - exploratory? at 1100 hr snake same, $29/30$; air, 26.1°C ; ground, 25.2°C . I went to the water fall before lunch, and to town for mail afterwards.

10 July

at ≈ 0730 hr an OTS student found an adult Clelia clelia crossing the AC lab sidewalk in forest. It thrashed when handled. at ≈ 0800 hr I was taken to ≈ 100 m on CES, where Edwin was watching an adult Pseustes poecilonotus that was frozen on the ground with its tail & posterior up on a buttress. Back and tail had many small, consecutive kinks, and my impression ~~the~~ was that the animal was just then descending from the tree. It thrashed, inflated, and bit repeatedly when grasped. Not feeling well and slept much of the morning. Just after lunch, David Clark showed me a very large Heptophis ahaetulla crawling $\approx 2.5-3$ m above ground on vines and saplings, just off the AC lab sidewalk and in The Reserve. Snake was too high

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10 July
(continued)

to grab for, and we watched it move away and up out of sight for a few minutes. As w/ the Spilotes on the bank of the Rio Puerto Viejo, I was really impressed by the ease of movement of the snake on slender vines and over leaves - as easy as swimming or flying, or so it seemed. Gerardo Vega, a very skilled worker and local naturalist, told me he watched a Leptophis ahaetulla this morning chase a Smilisca (pura?) and catch it. The snake was initially ≈ 1 m up on a bush, and the frog hopped twice before it was caught. He estimated the snake as ≈ 1.2 m and the frog as a few centimeters.

11 July

When I handled the Clelia this AM for photos, it repeatedly tried to crawl away. When I restrained the head or anterior body, it immediately elevated the tail, exposing the white belly and prolapsed cloaca, then "seized" my wrist in tight coils w/ the tail! This 6 ft + snake never tries to bite. I seem to be getting a flu or cold that's been going around here for weeks and stayed indoors all day. Manuel and Anna Keralta found a Scaphiodontophis venustissimus active in litter, which dashed beneath a

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11 July
(continued)

Socratea palm when chased. Resemblance to a Micrurus nigrocinctus was sufficient to cause Manuel to pin the snake w/ his boot. I palped a 3.85g ♂ Sphenomorphus cherriei, swallowed head first, out of the 43.5g ♂ Scaphiodontophis. By early afternoon the snake had died, tho why we don't know. Deborah Tetreau and Feynner Godinas, friends from Berkeley, arrived.

12 July

hot and sunny all day - we need rain. The forest is thirsty! at 0730 hr Lachesis muta ch 1 was in same place, head down; $23/30$; air, 23C; ground, 24C. at 0804 hr Bothrops asper ch 4 was down behind the log, not in sun; $23/30$; air 24C; ground, 24C. at 0843 hr, B. asper ch 2 was still in hole w/ eyes very opaque; $23/30$; air, 25.5C; ground, 24.8C.

13 July

at 0905 hr B. asper ch 4 is immobile, partly coiled E of the bromeliad on the log, w/ its posterior trailing through the green bromeliad leaves. Head faces ENE; $25/30$. Discovered & broke the thermometer. a bright sunny morning! Took photos at 0910 hr, only tail still up in bromeliad. at 0930 hr the snake is same, but tail has come down into coil; $29/30$. at 0947 hr, as I watched, the snake shifted a different, more posterior part of its body into direct sunlight, and stopped w/ its head facing SE. at 1000 hr the snake is in same position, now mostly in shade; $32/30$.

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13 July
(continued)

at 1030hr the snake is in full shade and has been almost continuously since 1000hr; sky sunny, partly cloudy; $32/30$. at 1100hr everything is the same, although there are gusts of wind and it seems that clouds are building up from the ENE; $32/30$. at ≈ 1115 hr Cathy Propper (Oregon St. U.) and Anne Brooke (UCB) saw a coral snake patterned snake in forest just behind the kitchen on SOR. It was fairly stout and they thought it probably Lampropeltis triangulum. at 1126hr I grabbed a Leptophis nebulosus at \approx SOR 50 as it crawled on grass across trail. It had SV 515 mm, tail 257 mm, head width 6.7 mm, and 17 g. I palpated a juvenile frog, cf. Hyla, from it that had been swallowed ~~tail~~ tail first, SV 17.5 mm, head width 6.7 mm, 0.4 g. When I initially grabbed the snake it thrashed, gaped, bit, and defecated a foul substance. Forgot to mention that yesterday at ≈ 1600 hr Feynman Godinas showed me a Bothrops nasutus (1360 + 138 mm feces saved) in a tight coil in the open at ≈ 200 m on CCL. at 2100hr Manuel and I found Hadesis muta Ch 1 at a new site, N of the CCC trail and under some fallen leaves that formed a thatch over a limb. She seemed alert; $25/30$. at 2119 hr B. asper Ch 4 was behind the bromeliad and facing E; $26/30$. a very bright moon tonight,

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13 July
(continued)

such that we can see the tops of understory shrubs w/out lights. The descent down the steep hill on CCC was especially beautiful, w/ the outlines of limbs and foliage clear cut on either side. Saw one large armadillo (Dasypus?) and ≥ 2 Potos.

14 July

Raining steadily since during the night. At 0830h Lachesis munita Ch 1 is in the same place, head facing SW and down in coils; $^{23}/_{30}$. At 0852h Bothrops asper Ch 4 is in same place as last night, and is drinking from droplets on its skin. At 0900h the snake is still drinking, as I could clearly see movements of the lower jaw. Entire 8-10 minutes I watched snake, its head was elevated, nose almost vertically downward. Chin movements sporadic. $^{23}/_{30}$. At 0922h, B. asper Ch 2 is still in the hole above the Rio Puerto Viejo; $^{23}/_{30}$. Light rain still falling. At ≈ 1400 h I was called to \approx CCL 175 m to capture a large Bothrops asper, which turned out to be the same one we caught 17 June 1984 and lost track of (because it moved and left behind a defecated radio) on the night of 1 July 1984. It's Ch was 5 then and now. The snake was found today by Deborah Teloarneau (UC Santa Cruz) and Feynner Godinas and three others. They were standing on the boardwalk

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14 July
(continued)

watching a bird on the buttress of a fallen tree just N of the trail when the snake crawled out and away from them. This is a place where there is a pit under and on the N side of the boardwalk because of the uprooted tree. Snake coiled immobile facing them beside the buttress. When I tried to hook it into a can it crawled away repeatedly, then stood its ground under dead leaves at the base of a small tree, w/ head & neck in S-coil and tail vibrating. Once I had to restrain it a few inches behind the head and it turned and gaped widely w/ fangs erect for $\approx 1-2$ seconds - the mouth looks huge and white, jaws open almost 180° ! After dark Manuel and I made a circuit to check snakes on the Loop Trails. At 2225hr we found the Lachesis muta Ch 1 alert in the same place; $^{23}/_{30}$. At 2240hr we found the gravid ♀ Bothrops asper Ch 4 in exactly the same position as last night, behind the bromeliad in a hairpin coil w/ head facing E; $^{25}/_{30}$. Saw a large Dasyatis just before we emerged from the forest on 50R behind the station. Michael Fogden had caught an adult Imantodes ~~the~~ cenchoa lying out on a palm leaf that contained a half-digested Norops lemerisus that had been swallowed head

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14 July (continued) first. Snake weighed 22.5g; SV 715 mm; tail, 315 mm; ♀. Remains of the anole (tail, hind legs, post. of body) weighed ≈ 5 g; groin to heel, ≈ 30 mm.

15 July at 0930 hr found the hachesis muta on ecc in the same place, head down in coils; bright overcast; $22/30$. At 0945 hr Bothrops asper Ch 4 is out in a wide, open coil E of the bromeliad. Sunny, snake is partly in sun; $24/30$. It seems to me that this snake usually has a tight, sheltered coil at night, and a broad, exposed coil in the daytime, although a few nights ago Michael Fogden saw her in the open at ≈ 0300 hr. At 0950 hr I took some photos and saw her "swat" at a fly by flinching skin and/or muscles of the body a few centimeters anterior to the anus. Snake is still obviously gravid but the swelling is not yet concentrated near the cloaca. At 1000 hr snake is same but all in shade; $26/30$. At 1030 hr all is same; $26/30$. At 1047 hr, the B. asper Ch 2 in the hole of bark above the Rio Puerto Viejo is as before; $23/30$. At 1415 hr we released the old B. asper Ch 5 at the capture site which is w/in ≈ 100 m of her former siting. Put the radio in her w/out difficulty, and noted two injuries: a superficial skin cut behind the head which I undoubtedly

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15 July
(continued)


caused yesterday, and two hinds a few inches above the cloaca which appear to be spinal injuries of unknown origin. When I turned her out of the can, she glided rapidly away to leaves at the base of a small Welfia palm a few meters N of the trail, then coiled under them at S-coil and head facing me. I have the growing impression that these snakes try to escape, then prepare for an offensive defense should the pursuer continue. at 1425h Bothrops asper Ch 4 has head on the E side of a broad coil, facing E; bright overcast; ²⁹/₃₀. at 1440h. B. asper Ch 5 is as before, still "aimed" towards the trail.

16 July

An uncomfortable night w/ biting bugs and snuffles, and I felt crummy this AM so Manuel checked the snakes. Getting a sore throat so I napped and relaxed all morning. At \approx 1330h Feynman Godinas showed me what appears to be the den of a Felis onca. It is \approx 50 m N of the CCL at \approx 300 m, on a \approx N facing slope above the Quebrada El Salto. The slope is sparsely covered by trees and small understory palms, and there is a large fallen tree nearby. The entrance is a few meters down slope from the ridge, marked by an obvious mound of red dirt that rises directly in front and then falls away down the slope. The hole

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16 July
(continued)

faces slightly up from horizontal, measures $\approx 50 \times 21.5$ cm, and is shaped like this: . W/a light we could see that the den is a large, more or less round chamber ≈ 2 m in all dimensions, w/ the roof slightly higher than the entrance hole. It is clean - no feces, bones, etc, and only a leaf or two; no obvious bed. There was a distinct tho faded cat track a few cm in front of the entrance on the upslope between entrance and dirt mound, w/ well spread toes and ≈ 12 cm across. Couldn't find any hair or other sign, but a distinct game trail traversed the slope from below to the west, just above the entrance, to the ridge to the east. We tried to imagine any other animal at La Selva constructing that room and couldn't, and the entrance seems large enough for an adult jaguar (or a person) to slip into. It seemed recently used, as there were no spider webs and the edges of the entrance were very distinct. The room drops off just inside the entrance, such that one couldn't just crawl in or out. Maybe a nursery? We (Fayner and the Fogdens) agreed to keep the location secret for a few days and not revisit the site immediately, in case the cat is

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16 July (continued) using it. At 1405h Feynman showed me a small (≈ 40 mm) Eleutherodactylus biporcatus that he found inside a dry, old fruit on the ground. He found it this morning amidst a column of army ants, undisturbed by them. George Schatz (U. Wisconsin) came by as we talked and identified the fruit as Passiflora arbutifolia. At 1410h I saw the Bothrops asper Ch 5 in a loose coil on the forest floor near where it was released, w/ its tail & posterior trailing outside the coil proper (because of injury?); neck looked OK; 29/30. At 1435h B. asper Ch 4 is on a branch pile ≈ 2 m NE of its "usual" site closer to the bromeliad. It is in shade in a fairly tight coil; bright sun and partly cloudy; 30/30. At ≈ 1655 Jonnie McHargue (U. Miami) called me to a Lampropeltis triangulum she saw cross the CES at ≈ 50 m and take refuge in dead leaves at the base of a small tree. When I seized it the snake thrashed, bit fiercely and repeatedly, and cloacal discharged. It had obviously eaten recently, and I palped three Heteromys from it, all of which had been swallowed head first. The snake weighed 360 g; SV, ^{102.8} ~~102.8~~ ^{102.8} ≈ 97 cm; tail, 17 cm; ♂. The mice weighed 40, 30.5, and ≈ 29 g. Went to Puerto Viejo w/ Rodolfo and Anna Peralta

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16 July (cont.) for the night.

17 July Raining before dawn and as we walked into town. Victor's truck wouldn't run, so all of us (≈ 10) rode in Angel's big boat from behind Victor's house to La Selva, in a good rain. Saw several kingfishers and a heron. Still have a sore throat.

—

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3 August

Black Mesa, Cimarron Co., Oklahoma

arrived here ≈ 1800 and walked around flats and lower slopes for 1-1½ hours. Still very light. Saw juveniles Holbrookia maculata in flat, open grass beside the road, which responded to approach w/ fast, straight dashes for ≥ 0.5 m. Saw a Sceloporus undulatus which escaped in boulders, and an adult ♂ Crotaphytus collaris. I found the collared lizard inactive under a lava rock in a flat grassy place strewn w/ them; it ran a few meters away and under a flat rock, where it took refuge in a burrow. The soil was too dry to dig much w/ either hands or pocket knife (broke a point). Camped at Black Mesa State Park, $\approx 8-10$ rd. miles away.

4 August

Back to Black Mesa ≈ 0700 and walked around 'til >1200 . Thus today a team from the MVZ scaled the highest point in Oklahoma in a morning, at 4973 ft. The Mesa is a rimrock, several miles long, that seems to run WSW to ENE. We walked up the \approx S facing aspect. The top is a plateau bordered on the \approx N by a meandering canyon, surrounded by rimrock. As one leaves the grassy flats the slopes have juniper, cholla and prickly pear and small barrel cacti, and shrubs. The rocks are generally light, but the rimrock is dark reddish brown lava and there are cascades of the latter that reach and spread out down the slopes at intervals.

Greene, H.

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4 August
(continued)

The only lizard we caught was an adult ♀ Sceloporus undulatus on a boulder; she seemed to match well enough the background colors, but might not be any darker than normal individuals from elsewhere.

Las Vegas, San Miguel Co., New Mexico

Stopped here to camp just outside of town at Stonie Lake State Park. Very good meal at Johnny's Mexican restaurant, then to a movie (Cowman The Destroyer). We had been told park gates closed at 2200 and raced back w/ only a minute or two to spare, only to find them locked. Just as we'd laid a board over the one-way exit gate spikes to drive over them, the park official came up, very disgusted, and let us in. Then found that a large family group had either ignored our tent or overlooked it! On the drive to here we've seen numerous raptors thus far, including prairie falcons, ferruginous and red-tailed hawks, and at least one eagle (on a telephone post). Also a Vulpes vulpes out in the middle of grassland in Oklahoma (DOR).

5 August "Point of Malpais," ~20 mi S. of Grants on Hwy 117, Cibola Co., New Mexico

We reached here in midafternoon, a site Claudia read about in a paper by Hooper on melanism in mammals on lava fields. This is an

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5 August
(continued)

Extensive, heavily vegetated lava field covering hundreds of square miles. It is bordered on the E and W by high forested mesas that aren't lava, and on the S by grassy plains. Much of the lava on the flow is covered w/ lichens, and there are many junipers as well as ferns in the deeper cracks. In places there are long, straight sided, deep fissures a meter or more wide and several meters deep. The only lizard we saw was a ♀ Sceloporus undulatus on the flow. She seemed a little darker than I expected, w/ broken dorsolateral stripes that are near the local lichen colors. Claudia photographed her on lava, on a non-lava rock across the road, and on a dead branch - she was only arguably more cryptically colored on the lava. El Mono National Monument, Cibola Co., New Mexico arrived here ≈ 1830 to camp, a very pretty spot at over 7000 ft. Pinon, juniper, sage, lots of flowers, on grassy flats and low hills, surrounded by large sandstone, tree covered mesas. Just as we walked up to the Park Ranger's campfire talk at 2030 hr it started to pour (he seemed surprised when we left for shelter) and rained all night. When I awoke ≈ 0600 it had stopped, but now, $\approx 1\frac{1}{2}$ later it's still moist and chilly, and mist shrouds the mesas (early on the 6th).

Greene, H.
1984

6 August

Greene, H.

1984

27 October

≈2-3 mi W. of Lake Elsinore on Hwy 74, Orange Co., California
after a beautiful drive through the Santa Ana Mountains, I stopped at this roadside spot where in the spring of 1979 I caught a juvenile Crotalus ruber. Today turned pieces of tin and boards, but got only Uta and Sceloporus occidentalis (this was ≈10am).

Pisgah Crater, San Bernardino Co., California
Walked around here from 1400-1600 hrs. Sunny, a little cool, rocks warm to touch. Saw ≈6-8 Uta, caught one. Also got a small adult ♂ Urosaurus gracilis under a rock, ≈1.5 m from a creosote bush. Saw tail drags, cf. Cnemidophorus, and lots of mammal tracks, but no snakes or snake tracks. Got circled by a CHP plane and then an officer in a car - said they're watching for stolen vehicles. Supper in Indio. Road hunted from ≈1815-2030, ≈80 miles. Got adult Crotalus cerastes at 1827 and 1900 hr, both very noisy, and an adult ♀ Coleonyx between the two. I drove back and forth from the RR tracks to a point ≈10.7 miles west of them, thereby covering both places where lava crosses National Trail Hwy and hoping to get a Timorophis!

28 October

Hwy I40 at Newberry Springs, San Bernardino Co., California
DOR Masticophis flagellum at ≈0830 hr, apparently hit yesterday. Total length ≈40-50 cm, so I surmise it was a yearling.

